

AMERICAN GAS ASSOCIATION

Monthly



JANUARY
1952

fresher
than all
outdoors!

the new way to dry clothes automatically!

the new way

dries faster

The new automatic Gas dryer needs no slow warm-up . . . Gas is instantaneous!
Dries your clothes in minutes!

the new way

sanitizes clothes

Quick high heat of the new Gas dryer sanitizes clothes. The cleanest, sweetest-smelling wash ever!

the new way

saves ironing

No ironing for many things — they dry so wrinkle-free. Faster ironing for your evenly damp-dried wash. Much fluffier towels!

the new way

costs half as much

Think of it! Only half as much to run as any other automatic dryer! And because the new automatic Gas dryer frees you from one of the biggest back-breaking jobs in housework, it's one of the least expensive appliances you'll ever buy!

go see a demonstration of this marvelous NEW way to dry clothes automatically . . . at your Gas company or Gas appliance dealer's.

This is the **HAMILTON** automatic Gas dryer...one of several fine "makes" your Gas company or Gas appliance dealer will be glad to demonstrate to you.

GAS

AMERICAN GAS ASSOCIATION

the latest advance in automatic clothes-drying

Gas—the modern fuel for automatic cooking . . . refrigeration . . . water-heating . . . house-heating . . . air-conditioning . . . clothes-drying . . . incineration

First of a series of A. G. A. national magazine ads on the automatic gas clothes dryer



A WELDER wearing a disc face shield crouches atop a Texas Illinois natural gas pipeline to complete a multiple weld. Picture was taken for The Peoples Gas Light and Coke Co. as the 1,417 mile project was being completed

THE IMPORTANCE of accident prevention in the gas industry is brought into proper perspective with the formation of a top-level A. G. A. Executive Safety Committee. This group will advise the gas industry on national accident prevention policies and strive to stimulate top management's active support of safe operational practices.

Illustrative of the importance attached to the promotion of safety is the caliber of the committee's membership, as well as its creation at the highest policy-making level. With Charles E. Bennett, president, The Manufacturers Light and Heat Co., and first vice-president, A. G. A., as chairman, the committee includes three other presidents and four vice-presidents of major utilities.

Safe operation is a basic essential, the presence of which is only observable in the absence of accidents. Accidents are costly in terms of public confidence, manpower and investment. Safety is good management, good employee relations and mighty good public relations.

The program of the A. G. A. Executive Safety Committee is of industry-wide importance.

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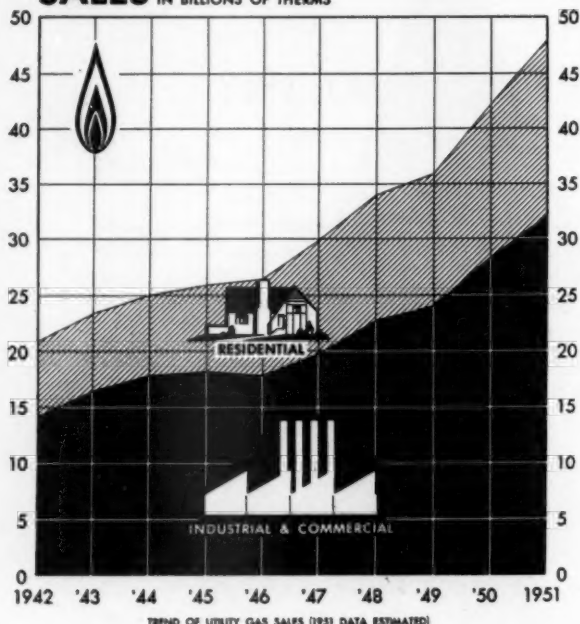
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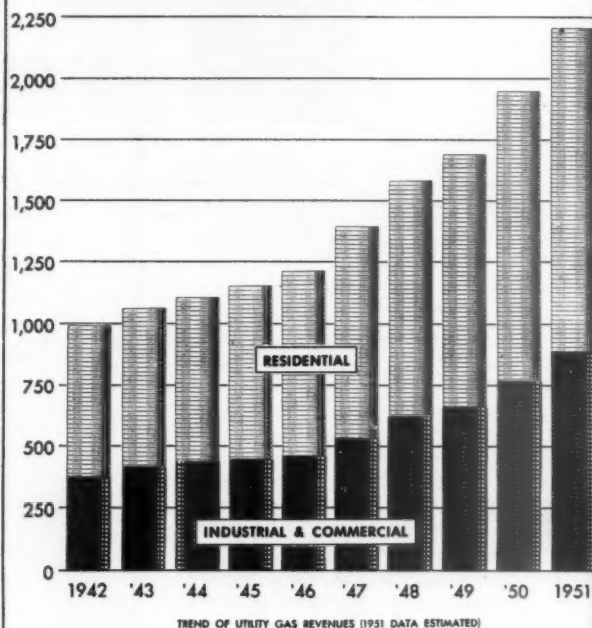
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SALES IN BILLIONS OF THERMS



REVENUES IN MILLIONS OF DOLLARS



By **GEORGE F. MITCHELL**

*President, American Gas Association
President, The Peoples Gas Light and
Coke Company, Chicago, Ill.*

The tremendous demand for gas services that has existed since the close of World War II still continues and it lifted the gas utility to new high levels in 1951. Revenues from sales of utility gas for the first time passed the two billion dollar mark. A record number of customers was added to gas utility lines and these customers were served an all-time record volume of utility gas. Nearly \$1.5 billion was allocated by gas utilities for new plant and equipment in 1951.

The natural gas industry continued its spectacular growth, bringing natural gas to new territories and augmenting deliveries made to areas formerly served. Conservative estimates indicate that of the \$1.5 billion total, nearly one billion dollars was spent in 1951 for construction of new natural gas transmission systems and expansion of the present pipeline network.

Even this huge expansion program fell short of keeping pace with consumer demand for gas. The American Gas Association estimates that in the five years from 1951 through 1955, nearly \$4.6 billion would be spent by the gas industry for expansion. Shortages of steel and other materials have restricted the growth of the industry to some degree. Our natural gas reserves continue to gain each year. Customers remain on waiting lists in some areas. New areas are scheduled to receive natural gas. With this bright outlook ahead,

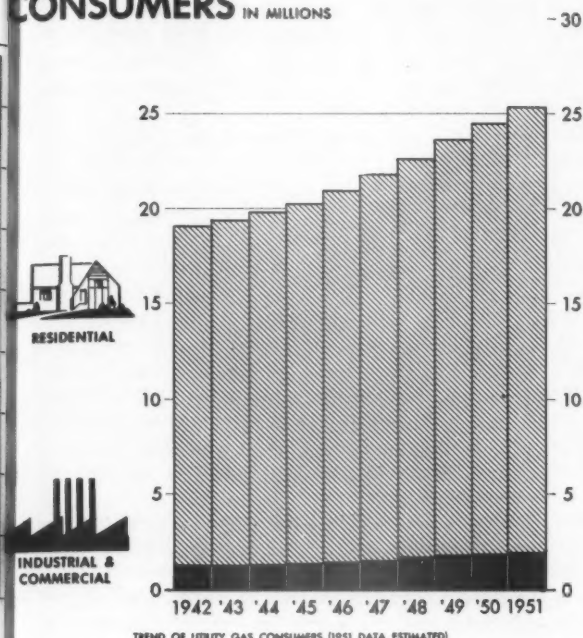
it is reasonable to predict continued advances for the gas utility industry, not only for 1952 but for several years ahead.

The gas utilities were serving approximately 25,392,000 customers at the end of 1951, including about 322,000 LP-gas customers served directly by gas utility companies. This marks the first time gas utility customers have numbered more than twenty-five million. The 1951 figure represents an increase of 3.7 percent over the previous record figure of 24,478,000 customers on gas utility lines at the end of 1950.

Of this record number of customers served, approximately 17,167,000 were receiving natural gas, a gain of 14.2 percent over the 15,030,000 natural gas customers a year earlier. Manufactured and mixed gas customers totaled 7,902,000 at the year-end, a decline of 13.4 percent. This decrease reflects the effects of changeovers by several large utility companies to the distribution of natural gas. This is particularly true in the case of straight manufactured gas companies that have changed either to straight natural gas or to mixed gas distribution. Because the manufactured gas industry, as such, is becoming smaller each year, the American Gas Association, during the past year, adopted the practice of grouping the manufactured and mixed gas companies in a single category.

Residential gas customers numbered 23,412,000 at the end of the year, an increase of about 3.7 percent over a year earlier. In addition to these customers of the gas utility companies, it is estimated that nearly 6,500,000 customers are served with LP-gas in areas not served by gas utilities. This means that more than thirty million homes are served with utility gas or bottled gas. Total sales of gas amounted to 47,869,000,000 therms, an increase of 13.7 percent over 42,090,-

CONSUMERS IN MILLIONS



Gas industry at new high in '51

100,000 therms sold in 1950. Natural gas sales totaled 44,421,000,000 therms, up 15.4 percent from a year previous. Manufactured and mixed gas sales were down 4.0 percent to total 3,359,000,000 therms.

Revenues from the sale of gas reached a new record level of \$2,205,370,000, a gain of 13.2 percent over the previous high of \$1,948,002,000 established in 1950. Natural gas revenues continued their spectacular gains, rising to a total of \$1,649,050,000, an increase of 21.2 percent over the previous year. Again reflecting the impact of changeover, manufactured and mixed gas revenues were down 5.4 percent to aggregate \$535,210,000 in 1951. The balance of gas industry total revenues resulted from sales of LP-gas.

The gas industry spent more than \$1,500,000,000 during 1951 for construction of new facilities and expansion of present plant and equipment. This program, following expenditures of more than one billion dollars in 1950, is evidence of the effort the gas industry is making to meet the still increasing demand for gas. Nearly one billion dollars was spent last year on natural gas gathering, transmission and distribution lines and storage facilities.

A recent survey made by A.G.A. revealed that for the five-year period from 1951 through 1955, the gas industry had allocated \$4,600,000,000 for new construction and plant expansion. It was estimated that \$1.5 billion of this total would be spent in 1951, and \$1.3 billion was scheduled for the 1953 expansion program of gas utilities. Washington bulletins indicate there may be some shortages in steel pipe and other materials allocated to the gas industry in 1952, which may necessitate some curtailment of the industry's expansion.

Natural gas facilities continue to show almost miraculous growth. The Federal Power Commission authorized construction of more than twelve thousand miles of pipeline in 1951, and applications for almost that amount are pending before the commission at the year-end.

The rapid extension of natural gas lines and the consequent expansion of natural gas service in both new and old areas continues unabated. During 1951 natural gas reached New England and the first cities were converted to this fuel, nearly two thousand miles from the wells. Extension of the pipeline systems through the area is under way.

With natural gas in New England as an accomplished fact, there are now 39 states receiving this premium fuel, and the Pacific Northwest is the only heavily populated area in the United States not receiving this fuel. Plans are under consideration for bringing natural gas to this region that may materialize in the not too distant future.

The vast expenditures for natural gas transmission facilities must be based on ample reserves of natural gas to draw upon. The Federal Power Commission makes such reserves mandatory before issuing a certificate of necessity and public convenience for constructing new lines or enlarging capacity of present systems.

The Natural Gas Reserves Committee of A.G.A. at the beginning of 1951 estimated that proved recoverable reserves of natural gas in the United States totaled 185.6 trillion cu. ft., an increase of more than five trillion cubic feet over the previous year, despite record production of 6.9 trillion cu. ft. during 1950. Over a long period of years, the proved reserves of natural gas have continued to gain each year. (Continued)

The Natural Gas Department, through its committees, has dealt with many of the important problems of this branch of the industry. Under the supervision of the department's Technical and Research Committee, acting under the PAR Plan, seven projects on natural gas production and transmission problems have advanced during the year and valuable data have been developed for the industry. These projects are being conducted under supervision of committees of leading industry technical men at qualified research institutions and government bureaus. The program will be continued aggressively through 1952. A technical committee, working with the American Petroleum Institute, has completed a comprehensive specification for field welding practices. A similar specification for railroad and highway pipeline crossings is being developed.

Study underground storage

An important step was taken by the Natural Gas Department during the year in the organization of a committee to study the engineering and economic factors affecting underground storage of gas. The growing importance of storage in maintaining service in winter months, and in the economic operation of the system, requires that the best talent available undertake industrywide studies of the subject.

More than 350 billion cu. ft. of natural gas are stored underground at the close of the off-peak gas industry season. It is estimated that the industry will spend more than one hundred million dollars in the next three years on underground storage facilities.

While the interest of the public and the industry has been fired by the spectacular advancement of natural gas, some very important changes have taken place in many manufactured gas localities. Distributing companies have made tremendous strides toward applying results of research and engineering studies to provide interchangeable gases during cold periods. Delivery of mixed gases throughout the year continues on a large scale in many localities. Further research advances in production of manufactured gases with available raw materials and further advances in equipment will still further stabilize the year-round supply of gas to consumers, especially in localities far distant from producing fields.

Dedication of a two-story addition to the Cleveland Laboratories highlighted activities for 1951. Top executives of the industry attended the ceremony paying tribute to the Laboratories' accomplishments over the past 26 years.

The new building represents the third major expansion of the Laboratories in Cleveland since their founding in 1925. The Pacific Coast branch, established in Los Angeles in 1930, likewise has been expanded several times as the demand for approved and tested appliances and listed accessories has increased. Together the two Laboratories now provide testing and research facilities totaling 70,800 sq. ft. with a total investment in plant of approximately \$866 thousand.

Appliance testing and inspection operations for the year represented about three-quarters of all Laboratories' activities on a revenue basis. Testing alone accounted for approximately one-half of all operations. Although testing activity declined somewhat from the 1950 peak, about 3,500 individual appliances and accessories were tested during the year. Central heating equipment represented nearly sixty percent of total testing activities.

Inspection of approved appliances in the field at manu-

facturers' plants increased, and a total of more than one thousand annual and unannounced inspections were made. Important revisions in the approval standards made last year included clarification of construction requirements and adoption of new performance requirements for electrical components and the wiring of appliances requiring them. New requirements texts embodying extensive revisions to those for central heating appliances, unit heaters, automatic pilots and water heaters were adopted.

All attendance records were broken at the 1951 A.G.A. Research and Utilization Conference held in Cleveland in May. A similar conference also was held on the Pacific Coast.

Seven research publications were issued covering domestic and industrial studies and a number of projects were continued or initiated. Among them was the design and construction of an experimental deep fat fryer surpassing those presently on the market in speed and performance. This was exhibited to manufacturers at a seminar on the subject.

Members of the staff in addition to regular departmental functions brought information covering the approval program and work of the Laboratories to other organizations and groups. Some twenty-four major meetings and conferences in various parts of the country were addressed by members of the Laboratories staff.

The Residential Gas Section cooperated with the promotional and advertising committees in implementing campaigns during 1951 covering all domestic gas appliances. The Dealer Relations Committee was reactivated to effect better liaison and closer integration between the gas industry and the dealer. A survey made to determine the type of program and materials needed by gas companies at the local level will serve as a base of this committee's activities during 1952.

The new housing market is subject to ever-increasing competition and it sets the pattern for modernization for existing homes. The section's Committee on Housing distributed much pertinent information on housing and housing statistics during the year.

The Committee on Improving Domestic Gas Appliances continued its studies of gas range requirements, to upgrade gas ranges so they will continue to be the finest cooking appliances built today. To this end, they drafted a set of recommendations designed to improve efficiencies and operation of "CP" gas ranges. These recommendations have been presented to the range division of GAMA for action.

Consumer interest grows

Home service departments throughout the gas industry report increased consumer interest in the basic problems of food dollars. This consumer interest brought about increased attendance at demonstrations; was evident in telephone requests and during home calls.

The Home Service Breakfast held in St. Louis during the Annual Convention was one of the largest attended meetings of the convention with nearly five hundred persons present.

Many home service departments are taking advantage of the tremendous selling power of television by adding TV shows to their over-all home service program. The American Gas Association recently published a booklet, compiled by the Home Service Committee, entitled *Cuff Notes on Television*. It included case studies of program types, organization of programs, and before and after techniques.

Industrial gas sales increased in step with the progress

made throughout the nation in defense production. Industrial gas sales revenues increased nearly eighteen percent during 1951, compared with a total increase of 13.7 percent for the whole industry and 8.5 percent gain for commercial gas sales.

A successful Sales Conference on Industrial and Commercial Gas was held in Washington, D. C., during the year. The Association sponsors industrial and commercial sales work. The 1951 A.G.A. Industrial Gas School was held in Pittsburgh, with attendance up 25 percent over the previous school. A Commercial Gas School will be held in Chicago in 1952.

Information letters on utilization and sales were produced during the year and a new commercial sales bulletin, *Flame Facts*, was initiated. This monthly bulletin will be mailed to food service equipment dealers for distribution to salesmen, architects and designers.

With equipment improvement as an objective, good progress has been made by committees of the section in encouraging manufacturers of commercial equipment to submit equipment for A.G.A. approval. Specific recommendations also were made to the Approval Requirements Committee on deep fat fryer construction and the use of automatic pilots in ovens. These efforts were successful.

Promote gas at expositions

Combined displays of gas equipment were sponsored by A.G.A. in the National Metal Exposition in Cleveland, the National Restaurant Exposition in Chicago, and the National Hotel Exposition in New York. Plans have been made for participation in these shows in 1952.

The joint Spring Conference of the Electric and Gas Utility Accountants in Chicago in April 1951 was most successful with more than nine hundred delegates in attendance. A productive series of meetings was held in St. Louis in conjunction with the A.G.A. Annual Convention. Discussion panels and informative speakers brought newest methods and accounting procedures to the attention of delegates.

Many important contributions to the industry were made by committees of the Accounting Section during the year. Among these were the work of the Taxation Accounting Committee which culminated in obtaining fair treatment for utilities under the new Excess Profits Tax Law; the development of a plan for the protection of records under emergency conditions; the completion of the format for the program of training by manual and films; and forward steps in the advancement of a standard packaging project sponsored by the Materials and Supplies Committee.

Long range project activities undertaken by the section include studies of electronics to keep the industry posted on progress of the science as it affects accounting work; depreciation studies to fill existing gaps in the important activities of the accounting branch; as well as long range studies of the entire operation of the section to develop possible improvements.

More than fifty committee meetings with a total attendance of over eight hundred and twenty-five persons were sponsored by the Operating Section during the past Association year. The section sponsored two spring conferences: the Distribution, Motor Vehicles and Corrosion Conference in Memphis, attended by about eight hundred people; and the Production and Distribution Conference in New York with more than six hundred delegates present.

The majority of papers presented at the annual convention and at the spring conference have been printed and distributed to approximately one thousand persons within the industry. The section also published a new reference book on instruments for corrosion testing, a new drivers' manual and a reprint on *Gas Analysis and the Testing of Gaseous Materials* last year. New committees were set up to study piping on customers' premises and to review proposed standard rules for gas service prepared by the National Association of Railroad and Utility Commissioners. Another committee is working to prepare a new edition of the *Gas Engineers' Handbook* which eventually will be published by McGraw-Hill Book Co., to replace the outdated edition.

The section has worked closely with the Accident Prevention Committee in reducing accidents within the industry. One afternoon of the conference at Memphis was devoted to the Accident Prevention Committee. A symposium on safety was featured at the Production and Chemical Conference in New York.

For the past three years there has been a steady decline in both the frequency that injuries have occurred and the average amount of time lost by workers involved. Fatalities were 35 percent less in 1950 than in the preceding year. The total number of disabling injuries was 11 percent fewer in 1950 than in 1949 and the same decrease was experienced in the amount of time lost for each accident.

The Accident Prevention Committee gives much credit to the Operating Section of A.G.A. for its splendid cooperation in accident prevention work. In addition to meetings held in conjunction with the Operating Section's conferences, the Accident Prevention Committee held a two-day Safety Conference in Kansas City with 125 delegates participating.

The gas industry successfully completed its seventh year of operation of the coordinated Promotion, Advertising and Research (PAR) Plan under which gas utility companies have subscribed nearly twelve million dollars to finance intensified programs of promotion, advertising and research on behalf of the entire gas industry.

Cooperation boosts sales

Sales campaigns spearheaded by the A.G.A. Promotion Bureau were successful in helping to offset buying slumps that followed the panic buying in the post-Korea months. Shortages of materials, increased taxes, credit restrictions and higher living costs put a brake on consumer purchases, particularly in the last half of the year. Through the splendid integration of the advertising and promotion efforts of the gas utilities, gas appliance manufacturers, dealers, GAMA and A.G.A., our industry was again able to match, and in some instances exceed, the efforts of competitors.

During the year the Association sponsored an important research project to insure housewives a "cold" range that will use no fuel when not in use. Fifty gas utilities in various parts of the country will field test 2000 ranges that are equipped with various types of single point ignition systems, to determine which of ten systems will bring the most efficient results to consumers.

Some 240 million messages illustrating the latest developments in domestic, industrial and commercial gas appliances and equipment appeared in 35 national consumer magazines and business papers during the A.G.A. national advertising campaign for 1951. Financed by the PAR Plan, this program

consisted of 341 advertisements purchased at a cost of \$825 thousand.

Major advertising effort in the residential field was concentrated on gas cooking and the gas range, coordinated with the A.G.A.'s special promotional campaigns. In addition, well rounded advertising campaigns were conducted in behalf of the automatic gas water heater and clothes dryer, and the gas refrigerator. These were also timed to support national sales drives on those appliances.

For the fourth consecutive year the Association offered its cooperative space sharing proposal to manufacturers of gas ranges who do national advertising. Ten manufacturers participated. For the first nine months of the year this proposal was successful in building the volume of combined A.G.A. and gas appliance manufacturer gas range advertising up to the point where it enjoyed a substantial lead over electric range advertising. Figures for the last three months are not yet available. Advertising of gas water heaters far out-distanced that of electric water heaters, as has been the case in recent years.

Advertising directed to the industrial and commercial fields was concentrated on 13 markets offering good opportunities for growth and at favorable rates. Some eight million messages appeared during the year.

The threat of war with its attendant complications hampered the Promotion Bureau in coordinating its activities to the fullest extent with those of the manufacturers and utilities. A surge of panic buying took place early in the year when the threat of government restrictions made it appear that merchandising might be difficult. The threat failed to materialize and as a result dealers were overstocked and prospect lists diminished. It was not until fall, under the stimulus of the Old Stove Round Up that deliveries of gas ranges by manufacturers showed an upward trend.

National promotions were launched to promote gas incineration, automatic gas water heaters, gas clothes dryers and gas ranges in the spring. The Spring Style Show had a tie-in with the M.G.M. picture, *Father's Little Dividend*, with Elizabeth Taylor as queen of the style show. This proved very effective. Campaigns also were prepared for house heating and air conditioning, though these were intended for limited markets. A refrigeration campaign for the summer months was coordinated with Servel's Silver Anniversary drive.

Another movie tie-in was made, this time with the M.G.M. picture *Texas Carnival*, starring Esther Williams, as an important feature of the Old Stove Round Up. Excellent results were achieved by the hundreds of gas utility companies participating in this coordinated effort.

Several new booklets were issued during the year, completing the "Big Ten" series that were designed to promote sales of gas appliances. In the commercial and industrial fields programs were executed that were of value to gas utilities, equipment manufacturers and dealers. New publications, striking demonstrations and large scale participation in national shows and exhibitions helped maintain the prestige of gas in commercial and industrial markets.

To stimulate sales of gas clothes dryers, the work of the New Freedom Gas Kitchen Bureau has been expanded to include laundries and when gas house heating is generally available, the program will be expanded to include the New Freedom Gas Home. As a result of the program, many

Sales and revenues 1951

*Compared with 1950
(Preliminary)*

TOTAL GAS UTILITY INDUSTRY CUSTOMERS, SALES AND REVENUES, 1951 COMPARED WITH 1950. (PRELIMINARY)

	1951	1950	% change
CUSTOMERS (at Dec. 31)			
Residential	23,412,000	22,579,000	+ 3.7
Commercial	1,852,000	1,781,000	+ 4.0
Industrial	105,000	102,000	+ 2.9
Other	23,000	16,000	—
Total	25,392,000	24,478,000	+ 3.7
CUSTOMERS (average)			
Residential	23,020,000	22,146,100	+ 3.9
Commercial	1,796,000	1,739,400	+ 3.3
Industrial	105,000	98,700	+ 6.4
Other	23,000	16,800	—
Total	24,944,000	24,001,000	+ 3.9
SALES (thousands of therms)			
Residential	15,885,000	13,839,100	+14.8
Commercial	4,478,000	4,103,800	+ 9.1
Industrial	25,989,000	22,886,700	+13.6
Other	1,517,000	1,260,500	+20.3
Total	47,869,000	42,090,100	+13.7
REVENUES			
Residential	\$1,318,600,000	\$1,177,070,000	+12.0
Commercial	288,050,000	265,571,000	+ 8.5
Industrial	565,530,000	479,610,000	+17.9
Other	33,190,000	25,751,000	+28.9
Total	2,205,370,000	1,948,002,000	+13.2

**NATURAL GAS CUSTOMERS, SALES AND REVENUES,
1951 COMPARED WITH 1950. (PRELIMINARY)**

	1951	1950	% change
CUSTOMERS (at Dec. 31)			
Residential	15,760,000	13,783,000	+14.3
Commercial	1,324,000	1,180,000	+12.2
Industrial	64,000	56,000	+14.3
Other	19,000	11,000	+72.7
Total	17,167,000	15,030,000	+14.2
CUSTOMERS (average)			
Residential	14,830,000	13,083,600	+13.3
Commercial	1,232,000	1,119,100	+10.1
Industrial	61,000	53,700	+13.6
Other	18,000	10,500	+71.4
Total	16,141,000	14,266,900	+13.1
SALES (MMCF)			
Residential	1,323,000	1,115,000	+18.7
Commercial	377,000	337,000	+11.9
Industrial	2,442,000	2,144,000	+13.9
Other	141,000	116,000	+21.6
Total	4,283,000	3,712,000	+15.4
SALES (thousands of therms)			
Residential	13,721,000	11,561,600	+18.7
Commercial	3,912,000	3,496,600	+11.9
Industrial	25,322,000	22,234,900	+13.9
Other	1,466,000	1,206,800	+21.5
Total	44,421,000	38,499,900	+15.4
REVENUES			
Residential	\$ 915,520,000	\$ 748,762,000	+22.3
Commercial	200,440,000	170,837,000	+17.3
Industrial	504,200,000	420,203,000	+20.0
Other	28,890,000	21,203,000	+36.3
Total	1,649,050,000	1,361,005,000	+21.2

**MANUFACTURED GAS CUSTOMERS, SALES AND REVENUES,
1951 COMPARED WITH 1950. (PRELIMINARY)**

	1951	1950	% change
CUSTOMERS (at Dec. 31)			
Residential	4,364,000	6,687,000	-34.7
Commercial	316,000	475,000	-33.5
Industrial	21,000	31,000	-32.3
Other	4,000	4,000	—
Total	4,705,000	7,197,000	-34.6
CUSTOMERS (average)			
Residential	5,248,000	7,079,600	-25.9
Commercial	377,000	500,400	-24.7
Industrial	25,000	32,500	-23.1
Other	5,000	5,400	-7.4
Total	5,655,000	7,617,900	-25.8
SALES (MMCF)			
Residential	210,100	276,100	-23.9
Commercial	57,300	71,900	-20.3
Industrial	51,600	63,900	-19.2
Other	8,700	8,700	—
Total	327,700	420,600	-22.1
SALES (thousands of therms)			
Residential	1,107,000	1,454,300	-23.9
Commercial	302,000	378,900	-20.3
Industrial	272,000	337,300	-19.4
Other	46,000	46,200	-0.4
Total	1,727,000	2,216,700	-22.1
REVENUES			
Residential	\$259,470,000	\$332,492,000	-22.0
Commercial	60,390,000	74,637,000	-19.1
Industrial	37,650,000	43,242,000	-12.9
Other	3,820,000	4,065,000	-6.0
Total	361,330,000	454,436,000	-20.5

**MIXED GAS CUSTOMERS, SALES AND REVENUES,
1951 COMPARED WITH 1950. (PRELIMINARY)**

**MANUFACTURED AND MIXED GAS CUSTOMERS, SALES AND
REVENUES, 1951 COMPARED WITH 1950. (PRELIMINARY)**

	1951	1950	% change
CUSTOMERS (at Dec. 31)			
Residential	7,357,000	8,496,000	-13.4
Commercial	501,000	574,000	-12.7
Industrial	40,000	45,000	-11.1
Other	4,000	5,000	—
Total	7,902,000	9,120,000	-13.4
CUSTOMERS (average)			
Residential	7,903,000	8,764,100	-9.8
Commercial	537,000	592,800	-9.4
Industrial	43,000	44,200	-2.7
Other	5,000	6,200	-20.0
Total	8,488,000	9,407,300	-9.8
SALES (thousands of therms)			
Residential	2,106,000	2,219,000	-5.1
Commercial	538,000	579,500	-7.2
Industrial	665,000	648,500	+2.5
Other	50,000	53,300	-6.2
Total	3,359,000	3,500,300	-4.0
REVENUES			
Residential	\$387,820,000	\$412,933,000	-6.1
Commercial	82,440,000	89,439,000	-7.8
Industrial	60,740,000	58,815,000	+3.3
Other	4,210,000	4,463,000	-5.9
Total	535,210,000	565,650,000	-5.4

	1951	1950	% change
CUSTOMERS (at Dec. 31)			
Residential	2,993,000	1,809,000	+65.5
Commercial	185,000	99,000	+86.9
Industrial	19,000	14,000	+35.7
Other	a	1,000	—
Total	3,197,000	1,923,000	+66.3
CUSTOMERS (average)			
Residential	2,655,000	1,684,500	+57.6
Commercial	160,000	92,400	+73.2
Industrial	18,000	11,700	+53.8
Other	a	800	—
Total	2,833,000	1,789,400	+58.3
SALES (MMCF)			
Residential	130,900	90,800	+44.2
Commercial	30,900	23,800	+29.8
Industrial	51,500	36,900	+39.6
Other	500	800	-37.5
Total	213,800	152,300	+40.4
SALES (thousands of therms)			
Residential	999,000	764,700	+30.6
Commercial	236,000	200,600	+17.6
Industrial	393,000	311,200	+26.3
Other	4,000	7,100	-43.7
Total	1,632,000	1,283,600	+27.1
REVENUES			
Residential	\$128,350,000	\$ 80,441,000	+59.6
Commercial	22,050,000	14,802,000	+49.0
Industrial	23,090,000	15,573,000	+48.3
Other	390,000	398,000	-2.0
Total	173,880,000	111,214,000	+56.3

a. Less than 500 customers.

news articles have appeared in women's magazines. These included stories on the A.G.A. Heart-Saver Kitchen, the new type, built-in gas range, and articles written around kitchens prepared for the 1951 A.G.A. Convention at the Laclede Gas Co. in St. Louis.

The *McCall's* kitchen contest was supported by 112 gas utility companies covering 700 communities. These utilities and their dealers requested 1,500 promotion and publicity kits.

A number of noteworthy advances have been made in the research work being carried on under the PAR Plan. Practical data have been developed on fundamentals of heat transfer, under the Domestic Utilization Research program, that will be of distinct help to domestic heating furnace designers. Studies in the corrosion field will guide manufacturers in the selection of materials for the combustion side of appliances.

As pointed out earlier in this report, a definite forward step was made in industrial and commercial utilization research in studying problems connected with gas deep fat fryers, and the construction of a model embodying the results of the study. At a seminar for manufacturers of deep fat fryers, all present expressed great interest and agreed to try out the new design features.

The research work on natural gas production and distribution has developed a humidity recording device rugged enough for pipeline application and sensitive enough to control dehydrator operation. Nineteen of these devices, entirely the result of a research project, are now in service or on order. Results of the first series of tests on orifice meter installation requirements have been published in bulletin form.

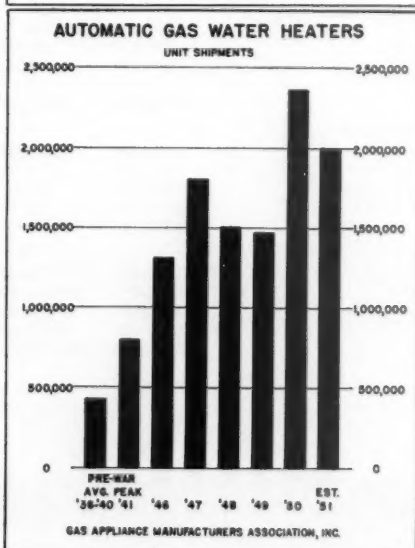
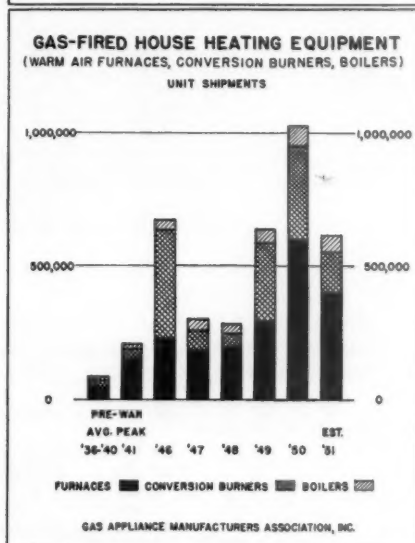
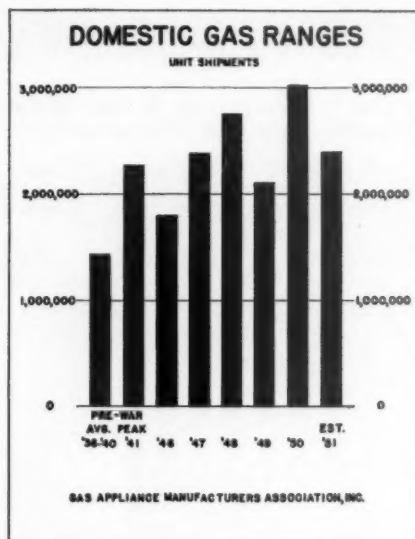
The industry is finding increased application of the Hall High Btu oil gas sets for the production of oil gas where high Btu gas is distributed, or for supplementing natural gas supplies. Some twenty-two sets are now in operation or on order. This process was developed under the A.G.A. Gas Production Research Program and it has been estimated that the annual savings through the use of heavy oil in these sets will more than offset the average yearly cost of this program.

The first step in the production of a substitute natural gas is well along under a project, "Coal Gasification," being carried on at the Institute of Gas Technology. A pilot plant has been finished and undergone shakedown tests. Trial runs have produced encouraging results.

The A.G.A. research program, sponsored under PAR, will amount to about \$650 thousand for 1951. In this program some 47 projects of major interest to the gas industry were conducted at various agencies, including: Institute of Gas Technology, Battelle Memorial Institute, Purdue University, University of Illinois, the Bureau of Mines, the Bureau of Standards, A.G.A. Laboratories, Arthur D. Little Co., Inc., and in cooperation with several manufacturers and gas companies. Some twenty-six bulletins and reports have been distributed in the past year.

The Utilization Bureau has maintained contact and performed valuable work with several federal bureaus and agencies in the past year. Among these were the Public Housing Administration, Veterans Administration, and the Federal Housing Administration. Assistance also was given to several

(Continued on page 41)



The extension of pipelines into additional markets, a growing number of users and rising preference for gas create a favorable sales picture for 1952

Foresee high appliance demand

By LOUIS RUTHENBURG

President
Gas Appliance Manufacturers
Association

An increase in the number of residential gas users during the past year holds the promise of fair selling weather for additional domestic gas appliances in 1952. Other favorable factors are the vast extension of the natural gas pipeline system, and the increased popularity of bottled propane and butane gas in rural and suburban areas.

Materials shortages or reduced allocations might make it impossible for gas appliance manufacturers to meet all demands.

The number of residential gas customers reached the all time high of 29,662,000 in 1951, but the sale of most types of gas appliances fell off substantially from the record-breaking figures of 1950.

Sales of gas home-heating units suffered the greatest drop from more than a million in 1950 to 610,000 in 1951. This slump was attributed largely to the lack of steel for pipeline expansion rather than to appliance production difficulties or sales deficiencies. Undoubtedly there would have been a drop in line with the general trend, but gas restrictions prevented an inestimable number of gas home heating installations which would have raised the total appreciably.

The present position of the industry can be better judged if viewed in rela-

tion to its achievements over the past fifteen years rather than in relation to the unusually active "Korea year" of 1950.

The 610,000 gas heating installations totaled eight times the 1936-40 average, nearly three times the pre-war high of 206,500, and represented an increase of 30 percent over the 1946-1949 average.

Range sales dropped from 3,023,000 to 2,400,000—still nearly a million more than were being sold annually from 1936 to 1940, and six percent above the 1946-1949 yearly average. Automatic water heater sales fell from 1950's all time high of 2,363,000 to two million. Sales for 1951 were five times the 1936-40 average, two and one-half times the pre-war high for one year of 800,000 achieved in 1941, and 31 percent above the 1946-1949 average.

In short, 1950 figures are not a worthy standard of comparison.

To summarize the expectations of manufacturers of various types of gas appliances and equipment, on the assumption that allocations of metals would remain fairly constant through the first half of 1952:

Gas heating manufacturers should be able to meet the demand of new housing and modernization. There will be some product simplification, but it will not impair efficiency.

Since automatic gas water heaters use very critical copper, monel metal and steel, all models will not be available to meet the demand, but manufacturers might conserve by concentrating on

larger sizes, which would be in line with the trend of public demand.

Gas range production will probably be adequate, and there will be opportunities to profit by strong promotional efforts. Industrywide promotions such as the Spring Style Show and the Old Stove Round Up will help to create a favorable sales climate. The "CP" group, makers of automatic gas ranges, has increased its promotion budget indicating a belief that there will be sufficient production and sales opportunity to justify the extra effort.

Producers of gas clothes dryers will probably be unable to keep pace with the rapidly increasing demand. Manufacturers of gas incinerators may find it difficult to match orders with production.

The removal of the excise tax on commercial gas cooking equipment is expected to stimulate orders on the part of hotels, restaurants and institutions. Production will be adequate, but military demands may cause some delays.

With the step-up in industrial production of all types, the producers of industrial gas equipment have a tremendous job to do. Since most industrial production requires heat processing with gas, vast quantities of this type of equipment are needed now and will continue in urgent need.

A comparable situation exists among the manufacturers of gas meters, valves and controls who have the responsibility of serving all other branches of the gas utility and gas appliance and equipment industry.



To determine the opening needed for adequate combustion and ventilation in modern utility rooms, a similar space was enclosed and equipped with furnace, dryer and water heater



The effectiveness of an automatic ignition system is charted. Extensive study has been devoted to the development of design and construction of automatic ignition and to its proper application to modern appliances

Research advances design

a PAR activity

Consistent development of new fundamental information on components of gas appliances, for the express purpose of advancing appliance design, is the function of one of the major branches of the American Gas Association's PAR research program. Improved convenience for the customer, less need for servicing and adjustment and more effective use of fuel are of primary importance in the concept of individual project objectives. The highest level of the industry's co-operative effort is centered in sponsoring and guiding this research; the best executive and technical brains participate in technical advisory groups and research committees. Essentially equal representation of appliance manufacturer and utility interests is found in these groups and committees.

In the planning of projects four commonly inherent characteristics of gas appliances require consideration. They are ignition, combustion, venting, and effective heat application.

Published reports and bulletins summarizing research developments (with an initial distribution of about 1700 copies here and abroad), are related to appliance advances through several channels. Throughout the industry they serve

as basic reference guides in training, and in the productive work of appliance designers and servicemen. In some instances they point the way to advancements of such magnitude that the level of performance of all appliances is improved.

To take advantage of special skills and facilities, the investigations are made in several recognized institutions. Contracts have been made with the University of Illinois, Purdue University, Battelle Memorial Institute, Arthur D. Little Inc., U. S. Bureau of Mines, Case Institute of Technology, The Institute of Gas Technology, Selas Corp., Surface Combustion Corp. and others. Investigations concerning appliances are largely centered at the Association's Laboratories.

Primarily because of years of experience, a wealth of technical knowledge of both old and new appliances, and the ability to produce understandable reports, the Laboratories serve as the core of research activities aimed at developing the design fundamentals of gas burning equipment. As the projects there encompass a wide span of appliances and applied techniques, they illustrate the objectives, achievements, and intended use of information developed in the over-all research program.

Effective and dependable automatic



A prototype model, developed as part of the study of the most effective methods of applying heat to deep fat fryers, proved capable of outperforming conventional models



Performances of hot water and space heating boilers of various types and constructions are recorded. Findings, correlated with those from utilities and other investigators, will indicate desirable improvements

ignition is now generally recognized as a necessary item in almost all gas appliances. Considerable research has been devoted to development of design and construction and the application of such systems to modern appliances.

During 1951 the Laboratories have released two publications. They cover the subjects of thermocouple type elements for automatic ignition systems and the design of large single port atmospheric gas burners to prevent flashback on ignition.

Work is continuing on gas pilots of very low input rating for application to domestic appliances. Efforts are being made to develop practical pilots which will burn less than 50 Btu per hour. Extensive studies on the application of automatic ignition systems to commercial cooking equipment are nearing completion; knowledge of this work has already increased the usage of automatic systems in commercial cooking equipment. This is one instance where the existence of a research project has stimulated advancements by equipment manufacturers.

For many years, the Laboratories have devoted considerable effort to the investigation of fundamentals of burner design so as to provide for effective combustion. Numerous research bulletins published on this subject constitute

the most extensive knowledge of this field available anywhere. Recent explorations of the mechanics of combustion have resulted in two Laboratories publications this year. They cover the design of non-primary aerated blue flame gas burners, and burner flexibility on base and peak load gases. Although immediate application of non-primary aerated blue flame burners is not anticipated, the necessary information is now available for employing burners much smaller in size than contemporary ones, with the added advantage of not having to supply primary air or make primary air adjustments.

Satisfactory operation of gas appliances on base and peak load gases is a problem that is receiving much attention. The Laboratories have made thorough studies of the extent to which various gases may be interchanged on contemporary burners. In addition, the possibilities of designing burners to accommodate a wider variety of gases are being investigated; a second report on this subject is being prepared. Another project is developing possible devices for adjusting gas burners on base load gases, so as to obtain satisfactory operation without readjustment on peak load gases. Other studies are being carried forward with specialized work on flame stability

and secondary aeration. There is very little published information on these subjects, and a great deal more needs to be known to arrive at substantial improvements in combustion and heat application.

One of the major factors in the performance of any gas appliance is its venting system. The Laboratories first began to explore the technicalities of draft hoods, as one important part of a venting system, some 20 years ago. An intensive study of the entire venting system is now underway. A comprehensive analysis and correlation of all available literature and other information available on the various phases of venting is nearly completed. This work is already serving as the background and springboard for the various venting projects set up under a master working plan. Other institutions investigating such problems as outside vent cowls, types of chimneys and their capacities as part of the master plan are being supplied with this information as it is developed. Because the design and performance of one component of a venting system cannot be entirely divorced from the effects of other components, close cooperation between the institutions doing this work is highly essential.

The intensive re-study of draft hoods

at the Laboratories encompasses the fundamentals of draft control methods and therefore includes not only contemporary types of draft hoods but all other types of draft control devices which might be employed. In developing this information for application to central heating, room heating and water heating appliances, consideration is being given to architectural trends in housing which may call for new types of venting systems. Because very little information is available on the draft conditions under which appliances and their venting systems must operate, the Laboratories is also initiating a field study to obtain this information.

Obvious benefits to be derived from these venting studies include: elimination of confusion and apparent contradictions of various sources of information, provision of an authoritative basis for improving effectiveness of venting systems through proper design, and a guide for preparing ordinances or codes so that gas appliances will not be expected to do the impossible.

Utility room studied

Recent house designs popularized small utility rooms, confined space installations of furnaces and water heaters and various combinations thereof. To meet this trend, it became necessary for the Laboratories to develop information on size of openings required in the walls of such small rooms or closets to provide an adequate supply of air for combustion and ventilation. The first bulletin published on this subject gave the necessary data on safe sizes of openings, assuming that ample quantities of fresh air were available at these openings. This study has now been extended to investigate various ways in which the air supply to and from the room and effective venting of the appliances can be accomplished. A small instrumented test room has been constructed and equipped with a forced-air furnace, clothes dryer and water heater. Arrangements have been made to supply air to the room in various controlled ways. Performance of the appliance is noted under several conditions. The effects of updrafts, downdrafts, blocked flues, room temperature, outside temperature, and external wind velocity toward and away from air supply duct openings are being studied. Calculations have been made and verified by tests to determine size, length, location, and design of ducts, louvers and

grills required to satisfy combustion and ventilation air requirements without adversely affecting appliance performance.

In addition to overcoming the inherent problems imposed by ignition, combustion, and venting, a gas appliance must have effective heat application in order to do the intended job well. Several projects aimed in this direction are underway in the fields of domestic and commercial cooking, heating and air conditioning, and water heating.

Two cooking projects and one water heating project seek to improve both comfort and convenience for the housewife in her daily tasks. The entire subject of cooking has been re-examined in the light of new cooking methods and procedures, new types of appliances, and new methods of food merchandising such as the sale of frozen foods. The first Laboratories report on this subject has been facetiously dubbed "The Gas Man's Cook Book." It compares cooking methods employed with various fuels and appraises the needs of the future.

The second phase of this study determines the proportions of radiant and convected heats available in gas ovens and the amounts of each absorbed by cooking loads. This second report should be available at an early date. Meanwhile, the work is being extended to determine how to supply, as effectively as possible, the proper proportion of radiated and convected heats in ovens and broilers.

Attainment of proper heat distribution in ovens and broilers is a necessary part of this study. An eight-inch layer of cake batter absorbs only about 140 Btu of all the heat developed in an oven and then released to a kitchen. A companion study is being conducted on the lowering of surface temperatures of ranges and the prevention of cooking vapor stains around oven and broiler doors, with the same goal of arriving at cooler kitchens.

Table-top water heaters provide a convenient, eye-appealing method of installing water heaters in small homes where space is at a premium and the unit must be placed in the kitchen or utility room. While these gas units are competitive with electric water heaters of the same size and even larger, they do not generally have the capacity and recovery ability of conventional gas water heaters. Ways and means of improving them are being explored by the Laboratories. This exploration includes the study of forced venting; use of mul-

tiples, angle flueways; employment of both external and internal flues; building in of dual storage tanks; and design of in-a-wall heaters. Here again, an all-out effort is being made to apply the heat so effectively that little of it will be lost to the kitchen or utility room.

Water heater controls

Another water heating project is concerned with the need for, and effectiveness of, temperature-pressure relief devices and emergency gas shut-offs for gas water heaters. A considerable amount of the confusion and doubt which existed in the industry has been clarified to some extent by a preliminary report on this subject, and plans are being formulated to complete the investigation so that full agreement can be reached regarding these control devices. It is expected that the findings will be applicable to all types of storage water heaters regardless of the type of energy employed for heating purposes. For this reason, each interested agency is being requested to furnish a committee member to guiding this project.

A recently completed project is the basis of a bulletin on fundamentals of heat transfer in domestic gas furnaces. This bulletin marks the first authoritative and comprehensive effort to adapt theories of heat transfer to the design of practical central heating equipment. During the few months since its publication, the Laboratories have had a constant flow of correspondence regarding details of interpretation of a furnace design chart, and testimonials to the effect that the furnace design procedures set forth in the bulletin are easy to follow and provide the correct answers. It is estimated that the Association's expenditures on this research have already been more than matched in savings by gas furnace designers, and it is also becoming apparent that approved appliances are being developed as evidenced by new models submitted for approval testing.

Another heating and air conditioning study is designed to chart the performance characteristics of gas boilers equipped for hot water and space heating services. It carries on a study made some years ago of field data available on the subject. Under controlled laboratory conditions, the effects of boiler water temperature, draw rates of domestic hot water supply, and types and thicknesses of insulation on perform-

(Continued on page 46)

Many factors must be accurately evaluated when selecting the size of main that will produce greatest profit

Economics of gas main sizing

By W. J. LUTZ and
J. H. MILLER

Public Service Electric and Gas Co.,
Newark, N. J.

Among the characteristics of the gas public utility business is the fact that the utility company is obliged to lay mains to keep pace with the increasing demand and growth of its territory. These distribution mains constitute by far the largest single item of the fixed capital of a gas utility. In the case of the Public Service Electric and Gas Co., it amounts to about thirty-six percent.

It is also an economic fact that the cost of cast iron gas mains is not directly proportional to the capacity as is nearly the case of other gas equipment such as compressors, turbines and motors. For example, there is the large group of gas mains whose diameters bear the installed cost ratio of two-to-three but have the capacity ratio of approximately one-to-two, i.e., for a 50 percent greater investment there is obtained 100 percent additional capacity. These relationships apply to the following size mains:

6" diameter versus 8" diameter	
12"	16"
24"	30"
30"	42"

There is a second group whose diameters bear the installed cost ratio of three-to-five and the approximate capacity ratio of one-to-three, i.e., for a

67 percent greater investment there is obtained 200 percent additional capacity. These relationships apply to the following size mains:

8"	12"
16"	24"

Also, there is the special case of four-inch and six-inch mains whose diameters bear the installed cost ratio of only three-to-four and the approximate capacity ratio of one-to-three, i.e., for a 33 percent greater investment there is obtained 200 percent additional capacity. This highly favorable relationship between cost and capacity is due to the fact that the capacity increases as the $\frac{5}{2}$ power of the diameter (Pole, Cox and Spitzglass formulas—Weymouth is $\frac{5.3}{2}$ power) while the installed cost ratio is more nearly directly proportional to the diameter.

This fact, which has a definite long range bearing on costs to the gas utility company, may be overlooked by the distribution engineer when he is confronted with the economic problem whether to lay a certain calculated commercial size main or the next size larger, if he does not give true weight to the total future carrying charges of both mains. The engineering calculation of the main size to meet an estimated future load is generally based on a flow formula which takes into consideration values of the following factors:

1. Flow of gas in cubic feet per hour, with due consideration of contemplated changes in its Btu content;
2. Pressures, both initial and terminal;

3. Specific gravity;
4. Length of line.

No solution can be obtained until values have been assigned to the above factors. However, after a certain calculated commercial size has been agreed upon, it is necessary to investigate the dollar economics of this size and the next larger size. It is the purpose of this study to emphasize the necessity of making a comparison of the present worths of future annual costs of both size mains and show that short-sightedness in selecting the main based purely on first cost may be expensive.

This cost comparison lends itself to a graphic presentation and solution. Since capital commands an annual rental (return), the time value of money must be recognized. In comparing plans or programs which include expenditures at future periods, the effect of compound interest must be recognized by comparing the plans on a present worth basis.¹ This results in a curved line relation.

Curve 1 shows graphically the present worths of future annual costs throughout the stated period of the calculated main and the corresponding larger main of the four groups listed which has a cost ratio of two-to-three and a capacity ratio of one-to-two. The ordinate of the curve represents present worth of future annual cost units. For example, if 200 units represent the investment cost of the calculated main, 300 units will represent the investment cost of the larger main (cost ratio two-to-three). The abscissa represents years.

The present worth of future annual costs for the small main for 20 years calculated on a ten percent carrying charge of which six percent is return

¹ Delivered before an Operating Section Session during A. G. A. Annual Convention, St. Louis, October 15-17, 1951.

² See "Principles of Engineering Economy," by E. L. Grant.

³ $200 \times 0.10 \times 11.47$ (present worth at 6 percent return of a 20 year annuity) = 229.

⁴ Engineering News-Record.

on investment is 229 units.² Correspondingly, the present worth of future annual costs for the large main for 20 years is 344 units.

The ten percent carrying charge used in these sample calculations is the sum of return on investment, depreciation, federal income taxes, and gross receipts taxes. As these components may vary with different gas public utilities, any specific calculation must be based on the values that apply to that company.

It is obvious that, if the predicted load for the 50-year period can be met by the calculated main, there is no need to install the larger main and be burdened with the higher carrying charges over the 50 years.

However, if the predicted load exceeds the capacity of the calculated main before the expiration of its 50-year expected life, and it becomes necessary to lay a duplicate main, then the dollar economics of laying the larger main in the first place must be investigated. For example, if a calculated main reaches its peak capacity in 15 years and it becomes necessary to lay a duplicate main at that time, the carrying charges from then on will be for both mains.

If the past trend continues, the cost of the second main, laid 15 years later, will be higher than today. Cast iron pipe has more than tripled in cost in 50 years (actually 3.8).³ This amounts to a 2.6 percent average annual increase. Common labor likewise has had more than a six-fold increase in wages from 1910 to 1947,³ which amounts to a five percent average annual increase. For purposes of this study a combined material and labor cost increase of three percent per year in the installed cost of cast iron gas mains has been assumed. This is reasonable in light of the past experience recorded above, and the fact that the cost of laying the second main years later is in itself more costly due to encountering subsequently laid subsurface structures and to more expensive street repaving.

The actual probable cost of the second main laid 15 years later will then be 312 units (compound interest factor at three percent per year for 15 years is 1.56) compared to 200 units today; hence the carrying charges of the two mains will be based on a total of 512 units instead of 400 units (two mains at 200 each) from that date on. The

carrying charges for the large mains are still based on the original 300 units. In this example, the present worth of future annual costs for the two small mains based on a ten percent carrying charge will exceed that of the large main at some future date. This is graphically shown on Curve 1 by line "c" starting at 15 years. It crosses line "a" (large main) at about the 32-year mark which is the "break even" point, i.e., that point of time when the present worth of future annual costs of the large main are equal to the present worth of future annual costs of the two small mains. Prior to this "break even" point the present worth of future annual costs on the large main are more than on the two calculated small mains but beyond it the financial balance is in favor of the large main. Since cast iron gas mains have an expected life of at least 50 years, there is a distinct saving in carrying charges from the "break even" point to the end of the 50 years.

Similarly, Curve 1 shows the "break even" point for the large vs two small mains based on different lengths of time that the first small main is estimated to reach its capacity and a second duplicate main is required. A study of this curve shows that for the main sizes listed, which have a cost ratio of two-to-three and a capacity ratio of one-to-two, it is cheaper in the long run in this example to lay the large main than to lay the small main, if it can be foreseen that the capacity of the small main will be reached prior to 20 years.

Curve 2 is included to cover the second group of mains which have a cost ratio of three-to-five and a capacity ratio of one-to-three. A study of this curve shows that for the main sizes listed it is the economic choice in this example to lay the large main if it can be foreseen that the capacity of the small main will be reached prior to 12 years. Furthermore, there is still available in the large main the equivalent capacity of one small main since the capacity of the large main is three times that of the small one. This available capacity becomes of value only if the equivalent capacity of two small mains is exceeded, because the present worth of future annual costs of three small mains rises rapidly and reaches the "break even" point in a few years as shown by lines marked "d" on Curve 2.

In order to simplify the problem,

the pumping and maintenance charges of the two plans under consideration have not been included in the computations. Since pumping costs are generally lower with a larger main, this saving would further favor the selection of the larger main. Due consideration must also be given to the maintenance charges of the two alternatives. The maintenance cost for a single small main is generally lower than for the next larger size main. However, the maintenance cost for two or more small mains is generally higher than for one large main. The pumping and maintenance costs must be added to the carrying charges, and then the totals compared on the basis of the present worth of these future annual costs.

The engineering calculation of the size of a gas main is only one step in the selection of the proper size. The next step is to apply financial engineering to determine whether a certain calculated commercial size cast iron gas main or the next size larger should be laid to supply an increasing load or growing territory. It is imperative that the carrying charges of the two alternatives be compared on the basis of the present worth of the future annual charges as outlined in this study.

It has been the purpose of this study to outline a method or approach to the dollar economics of gas main sizing. The values assumed are considered reasonable, and based on these assumed values it can be concluded that:

If it can be foreseen that the capacity of the calculated commercial size main will be reached any time prior to about 20 years for those mains listed on Curve 1, about 12 years for those on Curve 2, and about 28 years for those with the cost ratio of three-to-four and capacity ratio of one-to-three, and hence will require the installation of a second duplicate main, then the next larger size main should be laid in the first place. In other words, the larger main need only be up to 50 percent capacity any time prior to 20 years to justify its installation for those mains listed on Curve 1, and only 33 percent capacity any time prior to about 12 and 28 years for those mains listed on Curve 2 and for those with a cost ratio of three-to-four, respectively.

Decisions based on first cost only may ultimately cost the gas utility company considerable sums of money.



Top chefs prefer gas

● The long standing preference of leading chefs for the flexibility, speed and economy of gas for cooking is pointed up in the GAMA survey reported here. This "decision by experts" also has been used effectively by A.G.A. in national commercial gas advertising and by individual utilities to promote consumer sales. It is a strong argument in support of sales to housewives.

The results of a nationwide survey by the Gas Appliance Manufacturers Association prove conclusively that gas is the "number one" fuel with America's top chefs.

The poll reached into the spic and span kitchens of foremost chefs in New York, Los Angeles, Chicago and Washington, D. C. Overwhelmingly, the chefs stated that gas—natural, manufactured or LP—gave top performance and the best results. Only one remained off the bandwagon since he had no particular preference for any special type fuel. But even he admitted he used gas—and gas alone—for cooking.

The object of the survey was to settle for once and for all the question: "what fuel gets the best cooking results?"

The Stork Club, Press Box, Toots Shor's, Statler Hotel, Longchamps and the Plaza Hotel in New York City; the Town House and the Beverly Hills Hotel in Los Angeles; the Pump Room in the Sherman Hotel, the Drake Hotel and the Palmer House in Chicago, as

well as the Carlton Hotel, Olmstead's Restaurant and Mayflower Hotel in the nation's capital, were among the world renowned eating places queried by GAMA representatives.

The nation's top culinary artists readily advise the housewife that gas is the best fuel for cooking—besides being cheaper and cleaner.

Eleven basic questions were asked all the chefs. They tended to make the chefs talk freely. In most cases, answers were so comprehensive they revealed the full extent to which the chefs rely on gas as a cooking fuel. Only one question—"what kind of fuel do you prefer to cook with?"—got a one-word answer.

The answer invariably was "gas."

That question headed the list of queries put to the chefs. On the heels of this came pin-pointed questions to find out why gas was favored by a 13-to-one count.

Here are a few sample responses:

Gabriel Beaumont, chef-in-residence at the Stork Club, took a very positive stand.

"Le gas, absolument!" he declared, "control of heat is the secret of all great cooking. I can get a high flame one instant, a moderate heat the next and a low flame when I want it. Because I can get moderate heat on demand, I consider gas the only type of fuel to use in commercial and home cooking."

Beaumont, who has had 55 years of experience as cook and chef, thought

there was little—if any—room for improvement on modern gas ranges, declaring, "Today's automatic gas ranges are excellent and meet all the needs in the home."

But he did think American housewives should be more careful about the art of cooking. Somewhat wistfully, he said:

"It's really an art, Monsieur. We tend to slap our meal together. And there's no need to do that. Today's gas range should be an incentive to housewives to try more tempting concoctions for the man of the house and the family. It will pay big dividends, Monsieur!"

Amedeo Comotto, head chef of the Longchamps restaurants which serve more than 12,000 persons daily, thinks it's more economical to use gas. He says:

"You don't waste heat energy when you cook with gas. You can turn off the range when it is not needed. No cook, no real chef cooking on a commercial scale would consider using any other fuel but gas."

Comotto added:

"Frankly, I think gas is truly the all-American fuel."

The Press Box, where Silvio Gariazzo holds forth as head chef, is a favorite with newspapermen in New York City. Twenty-five years of experience is one reason his cooking is such a favorite. The same experience with gas ranges has convinced Gariazzo gas is the best of all

(Continued on page 48)



"Gas ranges give efficient, economical service under hardest usage."—Humbert Gatti, Plaza Hotel, New York

"Gas, the best money-saver and the best all-around cooking fuel, meets the needs of every chef."—Amedeo Comotto, Longchamps, New York

"Only with gas can I prepare food to delight the gourmet."—William H. Harmon, Beverly Hills Hotel, Los Angeles

"Only gas provides the needed heat on demand."—Nicholas Marchitelli, Mayflower, Washington

Advanced study for utility executives



On Sunday, July 6, 1952, some sixty public utility executives from all parts of the United States will meet upon the campus of the University of Michigan, Ann Arbor. On that day they will listen to the opening words of instruction from the professors with whom they will be closely associated during the ensuing four weeks.

If these men are of the same pattern as the Class of '51, which proudly bears the title of First Class on the University records, they will represent all executive branches of the gas, electric, and telephone industries from coast to coast and border to border. They will be of a median age somewhere in the mid-40's with an average of twenty years of service in the utility business. Most of them will find a familiar note in this day's events, hearkening back to long ago, as this will not be their first experience as college "freshmen."

During the four weeks to follow these men will undergo a rather rapid transition from freshmen to seniors. On August 2 they will receive certificates, as gravely as any of their younger campus associates receive their diplomas. They will have spent four class room hours, every day except Sunday, under the formal tutelage of the finest staff of professorial talent that the University's School of Business Administration can assemble.

They will have attended afternoon lectures twice a week delivered by public utility experts and men prominent in the fields of economics, education, and business. They will have spent countless hours in library research and study. They will have experienced the exchange of ideas, information, and philosophy of the type that can only be obtained through the offices of that great American institution known as the "bull session."

They will have developed their own *esprit de corps* as a group of men who have lived together with a common interest. They will return to their homes and businesses enriched by the experience, with new confidence, and better equipped to carry on their work and to assume their responsibilities.

Here is the story behind the development of this remarkable educational innovation. The need for such a program had long been recognized by the upper levels of management in the several utility fields. So it was a matter of getting together to develop plans and make a

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start. In the mid-summer of 1950 H. C. Thuerk, president, New Jersey Power and Light Co., and F. E. Verdin, director of personnel, The Cleveland Electric Illuminating Co., contacted the School of Business Administration, University of Michigan, about the desirability of a public utility executive training program. Their interest was shared by Elmer L. Lindseth, president, The Cleveland Electric Illuminating Company.

Messrs. Thuerk and Verdin were not acting in official capacity. But they were willing to interest other executives of the utility industries if tentative plans for a training program could be developed.

After a number of discussions with Dean Russell A. Stevenson and faculty members, a tentative program for the summer of 1951, was outlined. This program was later discussed with representatives of Michigan public utilities at a meeting in Ann Arbor.

The utilities represented, were: Detroit Edison Co., Michigan Consolidated Gas Co., Consumers Power Co., and Michigan Bell Telephone Company. On December 6, 1950, a meeting was held in New York at which Professor Merwin H. Waterman represented the university.

Present at this meeting were: T. A. Boyd, General Telephone Corp.; Frank Malone, American Telephone and Telegraph Co.; Wilson Arthur, Consumers Power Co.; Harrison Dexter, Central Hudson Gas and Electric Co.; H. C. Thuerk, New Jersey Power and Light Co.; F. E. Verdin, The Cleveland Electric Illuminating Co.; John Arnell, Consolidated Edison Co. of New York; S. F. Leahy, The Detroit Edison Co.; E. D. Milener, A. G. A.; E. S. Evans and H. S. Bennion, Edison Electric Institute.

Applications for enrollment in the first class which was scheduled for July, 1951 was greater than the number which could be accepted. Initially it was contemplated that the program would be limited to forty executives, but 57 actually participated in the program. In 1952 the limit has been set at sixty.

The principal objective of the program is to provide a perspective which will help the utility executive to carry on more effectively the functions of his present position and to prepare him for added responsibilities for management and policy determination when opportunities occur.

The subject matter of the courses em-

(Continued on page 47)



Robert L. Dixon, professor of accounting and program director of the public utility executive training program, shows some of the texts and supplementary business literature used during the four-week course. Each member of the class returns to his office with a "library" of worthwhile reference books



Public utility executives were attentive listeners during classes. Most of them took elaborate notes. Top left: Dean M. Barnes, Associated Telephone Co., Ltd., Santa Monica, and Willard J. Ball, Peoples Gas Light and Coke Co., Chicago. Top right: John C. Bolender and Anthony J. Demse, both of Milwaukee Gas Light Company. Lower left: Roger Karcher, Michigan Consolidated Gas Co., Detroit, and Fred Learey, Ohio Bell Telephone Co., Columbus. Lower right: Charles R. Dewhurst, Public Service Electric and Gas Co., Newark, N. J.

100 years of gas service

The flow of life in Michigan during the last hundred years—and the part played by Michigan Consolidated Gas Company in promoting industrial development and personal convenience—is presented in nine recently commissioned murals.

The murals range from the timeless allegorical portrayal of the discovery of gas, through the century of Michigan Consolidated's existence to the piping in of natural gas. Each suggests the part gas has played in the Michigan community.

Some of the paintings are reproduced here. Four others present additional his-

toric details of this exciting century.

"Early Detroit Settlers," by John Coppin, depicts the 1760 meeting of Richard Rodgers and Chief Pontiac.

Accurate and nostalgic details fill David Samson's "A Michigan Home Kitchen in 1851."

"Early Michigan Restaurant Kitchen," of about 1850 or 1860, was painted by John B. Tabb.

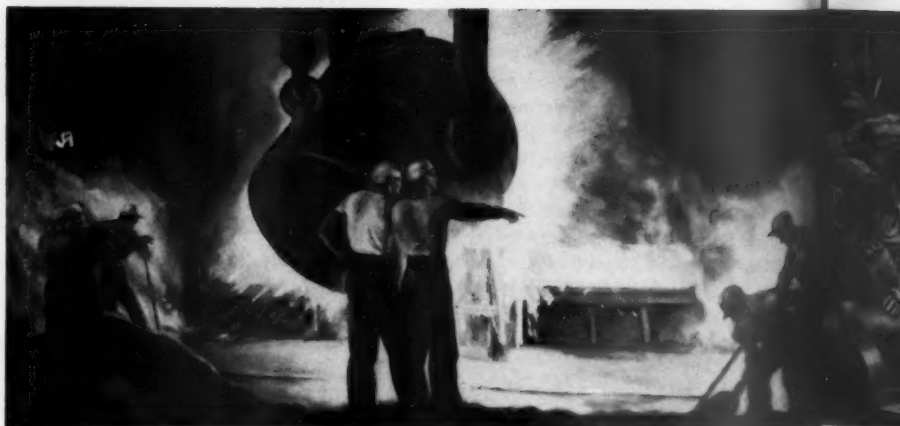
"Modern Compressor Station," by Emil Weddige, depicts one of the company's installations.

All of the paintings are reproduced in a booklet published by Michigan Consolidated Gas Company.

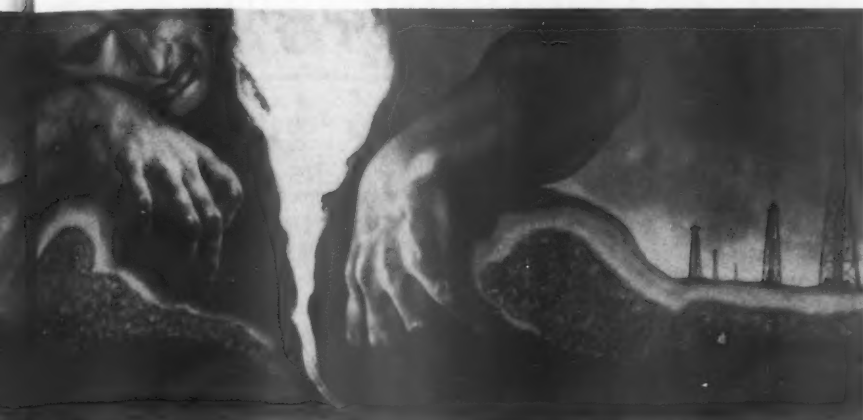
FIRST GAS LIGHT, 1851—Warren Simpson, who painted this gay scene, researched extensively for authentic details of the lighting of Detroit's first gas street light. City Hall is to the right, the U. S. Brigantine, Michigan, is to the left



GAS, FUEL OF MICHIGAN'S INDUSTRY—Steelprocessing, an industry of vital importance to Michigan and one in which gas plays an important part, is the subject of a canvas which John Coppin did to typify the fuel's great production value



The dramatic development of gas during the past century is vitally depicted in murals by prominent artists, commemorating Michigan Consolidated Gas Company's 100th anniversary



THE GAS FLAME, SYMBOL OF A BETTER WAY OF LIFE—in this 18 ft. x 5½ ft. mural, artist John Coppin imagines man taking gas fire from the earth for the first time. Modern drilling rigs are background for initial exploration and discovery



MODERN GAS KITCHEN—David Samson, who also painted the early home kitchen in the group, commented upon the marked progress in making life easier and happier. The modern appliances and bright surroundings greatly lighten housework



LAYING OF PIPELINE FROM TEXAS—In organizing figures, machines and landscapes, the artist, Donald B. Gooch, sought "to capture some of the drama involved in the laying of miles of pipeline to convey natural gas to consumers in Michigan"

A joint A. G. A.-EEI committee report summarizes utility accountants' reactions to NARUC-proposed revisions

Depreciation accounting controls

The following is a somewhat abridged version of the memorandum, comments, and recommendations which have been submitted by special committees of the American Gas Association Accounting Section and the Edison Electric Institute Accounting Division to A. R. Colbert, chairman, Committee on Accounts and Statistics, National Association of Railroad and Utilities Commissioners. The NARUC committee has been working for some time on a revision of the *Uniform System of Accounts for Electric Utilities*, approved by the Commissioners' Association in 1936, and, with a few exceptions, adopted and prescribed by state commissions since that date. Late in 1950 the NARUC committee submitted to the industry accountants a draft of proposed changes in the *Uniform System of Accounts* and asked for their comments. Because of the great importance attached to depreciation accounting by industry accountants and executives, the comments and suggestions on that portion of the proposed revision are here reproduced in condensed form.

Definition No. 4—"Amortization"
—The Committees recommend the deletion of the word "prorating" and the substitution therefor of the words "rational distribution of," making the definition read:

"Amortization" means the gradual extinguishment of an amount in an account by rational distribution of such amount over a fixed period, over the life of the asset or liability to which it applies, or over the period during which it is anticipated the benefit will be realized.

This change was proposed for clarity and flexibility.

New definition—"Depreciable Plant"—It was proposed that the fol-

lowing new definition be inserted between existing Definitions 10 and 11:

"Depreciable Plant" is that plant which is expected to be subject to retirement because of the action of one or more of the factors operating to bring about its ultimate retirement. These factors include, among others, wear and tear, decay, action of the elements, inadequacy, obsolescence and public requirements.

Because of the treatment of the definition of "Depreciation" which we are proposing as a substitute for Definition 11, it is deemed advisable to include a definition of "Depreciable Plant." Our proposed definition is intended to be sufficiently broad to enable each utility to determine, with the approval of regulatory authority, the elements of plant costs deemed to be subject to depreciation.

Definition 11—"Depreciation"
The Committees propose to delete Definition 11 "Depreciation" and to substitute therefor the following:

"Depreciation," as used herein, pertains to accounting for depreciation; and as so used means the apportionment to accounting periods of the recorded cost of depreciable plant less expected net salvage and other recoveries, by regular and systematic charges during the expected useful life of such plant.

Depreciation as so defined is thus distinguished from depreciation as an economic phenomenon, which is the loss in value of property, not restored by current maintenance, resulting from the action of one or more of the factors operating to bring about the ultimate retirement of property from service.

The definition as proposed in the revised NARUC system does not define depreciation as an accounting concept, but it implies that annual or accumulated amounts for depreciation measure the decline in value or serviceability. This concept is erroneous and misleading. The NARUC definition is in conflict with that of the American

Institute of Accountants, which says in part "It is a process of allocation, not of valuation." The NARUC definition approaches depreciation as a valuation problem. We feel that our definition offers the proper distinction between the accounting concept and the value concept.

Definition 13—"Group Plan"—

Definition 16—"Net Book Cost"—

Definition 17—"Net Original Cost"—

Definition 28—"Service Life"—

The committees propose the elimination of these definitions for reasons herein set forth.

Depreciation and related reserve accounts

Account 405—We recommend the substitution of the following for paragraphs A, B, and C of Account 405—Depreciation Expense:

- This account shall include the amount of depreciation expense for the period covered by the income statement for all depreciable utility plant in service except such depreciation expense as is chargeable to clearing accounts or other appropriate accounts.
- The periodic charges for depreciation shall be made in accordance with a systematic method which will equitably distribute the costs of the property over its estimated life, taking into account estimated salvage and removal costs.
- The utility shall keep records of property and property retirements, which will reasonably enable the preparation of special studies of estimated life of plant, salvage and removal costs.

Account 102-1—We recommend that Paragraph C of Account 102-1 be

changed to read as follows:

C. For general ledger and balance sheet purposes, this account shall be regarded and treated as a single composite reserve for depreciation. For purposes of analysis, however, each utility shall maintain records for each utility department, such as electric, gas, steam, etc., which shall show the current credits and debits to this account in sufficient detail to show separately (1) the amount of annual charge for depreciation, (2) the book cost of property retired, (3) cost of removal, (4) salvage, and (5) other items, including recoveries from insurance. If the reserve for depreciation has not been maintained classified by utility departments, then such segregation shall be made upon order of the Commission.

A system of accounts, which is proposed to be national in its application, should not prescribe the "straight-line" or any other *single* method of accounting for depreciation as the only allowable method. There are many generally accepted methods, and individual companies should be permitted to adopt any method which will reasonably accomplish the purposes set forth in the provisions, namely, the equitable distribution of the cost of property over its estimated life.

Other methods are permitted or prescribed by federal and by state regulatory authorities in many jurisdictions, among which are California, Ohio, Virginia, West Virginia and Louisiana. Furthermore, some commissions, among which those of New York and Connecticut may be cited as examples, are without authority to prescribe any single method.

The phrasing and context of the NARUC proposals as to record keeping seem to contemplate the routine maintenance of data by primary accounts and subdivisions thereof for continuous study of factors relating to service lives, salvage, and removal costs. To the extent that such data may be required, we feel they should be obtained by special studies and *not* made a matter of accounting requirement.

Furthermore, definitive results as to experienced life and mortality characteristics are derivable for only a limited number of utility plant accounts. The high cost of currently maintaining elaborate records of plant-service life by primary accounts and the fact that, at best, past experience only and not future probability is reflected by the results of such studies, lead to the general conclusion in the industry that such detailed current records are unnecessary and that special studies from time to time can pro-

duce equally useful data at a lesser cost.

The expense involved in segregating annual charges and reserves by primary accounts, with its related requirement of records, analyses, and estimates by primary accounts would be unwarrantedly burdensome. So long as the cost of the property, as a whole is equitably distributed during its life, it adds nothing to the success of that distribution to have it done by primary accounts.

It is our feeling, therefore, that the requirement of segregated reserve accounting, with the necessary segregation of annual charges, should not be made mandatory.

Terminology and position of reserves on balance sheet

The Committees recommend:

- (1) That the reserves for depreciation and amortization of plant accounts be included on the liability side of the balance sheet, along with other accounts normally having credit balances.
- (2) That the account titles "Reserve for Depreciation, etc." and "Reserve for Amortization, etc." be retained.

The retitling of the account and the position of the Reserve for Depreciation on balance sheet statements are considered so important by industry accountants and executives that a special section of these comments and recommendations, immediately following, is devoted to elaborating the case against a "net plant" balance sheet.

Why depreciation reserve should not be deducted from plant account

The Committee on Statistics and Accounts of the National Association of Railroad and Utilities Commissioners has, on several previous occasions, recommended to the National Association of Railroad and Utilities Commissioners that the Reserve for Depreciation be included in the asset account section of the balance sheet as a deduction from Utility Plant. This recommendation has on each such occasion failed of adoption or to receive the approval of the Association. It is again included in the tentative draft of the proposed system of accounts dated November 1, 1950. It is also proposed to change the title of the account *Reserve for Depreciation of Utility Plant to Provision for Accrued Depreciation of Utility Plant.*

The problem of deducting the reserve

for depreciation from the cost of plant assets and its serious implications involve consideration of the following other proposed changes:

- (1) To change the definition of the term depreciation from the present "loss in service value", to "decline in service value" with service value of property defined as "consisting of its years of service or output during its service life."
- (2) To require that the charge for depreciation shall be computed in accordance with the straight-line method applied on a group plan, with no provision for use of any other method.

When the proposal for "net plant" is considered together with the proposed changes in the definition of depreciation; in the title of the depreciation reserve account; and, in the requirement for the exclusive adoption of the straightline method for charging depreciation; then, the full implications of what is being attempted emerge quite clearly.

The "net plant" form of balance sheet has been advocated upon the grounds that it is a mere matter of form, and a time honored practice in industrial accounting. It has been urged that the regulated electric and gas utility industries should conform to the practices adopted by non-regulated industries and the reasons given are: that deductibility has become an accepted accounting convention; that it simplifies the work of the statistician and the security analyst; and, that no damaging consequences result therefrom.

The deduction of the reserve from plant assets is an industrial accounting custom which is unsound and incorrect in principle, and, if used by regulated industries would constitute a strong influence towards the confiscation of utility property.

The practice of deducting the depreciation reserve from plant account developed in non-regulated industries, when accountants were very much concerned with current asset position and with realizable values of assets in event of the termination of the enterprise. There was not sufficient emphasis placed upon the fact that the balance sheet represented a statement of financial position on a "going concern" basis. It was not fully appreciated that while the charge for depreciation represented allocations of cost over the periods of plant use, the depreciation reserve was represented by funds (depreciation money) which the "going concern" enterprise had recovered from its customers and

was using to best advantage in the business but for which it was accountable to its investors until such time as plant assets must be replaced through actual retirement.

That this truism has not been recognized generally in current balance sheets of non-regulated enterprises is a reflection on modern accounting standards. Pursuant to accounting convention, the balances of all accountability items should be shown on the liability side of the balance sheet. However, the continuation of the practice of deducting the depreciation reserve from plant assets in non-regulated industries is certainly no authority or reason for its extension to regulated utility industries.

In electric and gas utilities, the dollar balance in the plant asset account or "original cost" symbolizes generating plants, gas manufacturing units, substations, holder stations, transmission and distribution systems, and the like. Frequently, these facilities are described as the tools of the enterprise. When the depreciation reserve is deducted from the plant account balance, the net figure merely shows the result of mixing two accounts having unrelated content. It fails to disclose that the depreciation reserve generally represents a measure of an increased investment in plant and instead causes the "net plant" account to be misconstrued as a measure of a diminished volume of tools and facilities employed in the business. This constitutes substantial error and gross misrepresentation of material fact. The balance in the plant account should represent the total cost of plant assets then in service, not that cost diminished by the depreciation reserve. The accepted accounting procedure for recording depreciation which attempts to assure proper distribution of costs should not be permitted to obscure the significant figure of actual cost of plant assets in service.

It is necessary, in order to fully understand the meaning of the current proposals, to carefully examine all of the provisions relating to depreciation which give full import and expression to what may easily constitute a very serious financial blow to these utility industries. Detailed objections, discussions, and conclusions, in support of what has been stated, follow:

Statement of Implications in the NARUC Committee provisions relating to depreciation and reserve for depreciation.

The electric and gas utilities believe that the implications and the real meaning of the provisions relating to depreciation, as now proposed by the Committee on Statistics and Accounts in the NARUC system of accounts, are as follows:

- (1) That depreciation of utility plant, according to proposed definition, represents decline in service value or service life.
- (2) That the accounting charge for depreciation, based upon the requirement of the straight-line method and the proposed definition of depreciation, represents periodic declines in value proceeding uniformly during the life of the plant assets.
- (3) That the proposed change in title of the reserve for depreciation account to "Provision for Accrued Depreciation" will be interpreted as representing the measurement of all such declines in service value of plant assets since acquisition thereof and is the equivalent of "depreciation reserve requirement" computed in accordance with the straight-line method.
- (4) That since the balance in the "Provision for Accrued Depreciation" (following the above fallacious reasoning) represents the total declines in service value which have accumulated by reason of the passage of time, then—
 - (a) the accumulated reserve constitutes an offset or deduction from the plant account, and
 - (b) past accrued depreciation (calculated on the straight-line basis), not previously provided for, is to be increased by charges to "Special Income Charges." This adjustment of the depreciation reserve constitutes retroactive accounting and violates the principle against impeaching past accounting results.

The electric and gas utilities are convinced that the NARUC Committee's proposed provisions relating to depreciation and the depreciation reserve represent incorrect and inconsistent interpretations of the functions and results of depreciation accounting.

Objections to the accounting practice of deducting the depreciation reserve from plant assets in non-regulated industries.

The propriety of deducting the depreciation reserve from plant assets must be considered, both as to non-regulated and as to regulated industries. The present industrial practice had its origin in the now obsolete *direct write-down methods*. Early in the history of corporate accounting, when the knowledge and understanding of systematic and consistent recording of depreciation as a cost were very meager, managements in "good earning years" wrote down directly the

cost of their fixed assets by credits thereto and charges direct to "Profit and Loss." As a result of this practice, the plant account itself was the net result of such bookkeeping. In "lean years," the former practice did not appear to require any recognition of "depreciation" as then understood. With this earlier accounting practice, the recording of retirements when property was actually replaced, sold, torn down, or abandoned also was not required. It was, however, gradually recognized that such accounting was erroneous and misleading and without factual background or consistency. It produced neither cost nor value. It was, perhaps, a more or less conscious attempt at earnings equalization or disguise.

Later, more enlightened depreciation accounting established the credit account—Depreciation Reserve—the balance of which is the result of periodic journal entries, which systematically estimate appropriate charges to depreciation expense and concurrent credits to depreciation reserve, together with any charges to depreciation reserve and credits to plant accounts for retirements of property.

These journal entry transactions are designed to accomplish two primary objectives: first; to include with other expenses an allocation (by estimate) of cost of property used in the production of income; and second, to withhold funds within the business to maintain the stockholders' investment until property has actually been replaced. The act of showing such balances as a deduction from the Plant Account on the asset side of the balance sheet is thus a carry-over from the obsolete accounting practice of making direct credits to the plant accounts, a practice which was abandoned as misleading and erroneous.

The proportion of the plant accounts to total assets in non-regulated industry until recently was usually not significant, and the statement of plant assets less depreciation reserve had perhaps no important effect upon the financial position of the enterprise, in that it did not prejudice the value of its properties or its prospective earning capacity.

Nevertheless, the practice of deducting such depreciation reserve from plant assets has resulted in incorrect statements of the total amount of assets devoted to the conduct of the business and of an important accumulated source of funds

(Continued on page 44)

*Trade show exhibits carry a telling impact
upon a variety of groups who can profitably use gas*

Gas sales promoted at shows



A corner of the Combined Commercial Gas Exhibit at the National Hotel Exposition, Grand Central Palace, New York

The hotel show

a PAR activity

The Combined Commercial Gas Exhibit played host to nearly 100,000 visitors at the annual National Hotel Exposition, Grand Central Palace, New York, during the week of November 5, 1951. Fourteen manufacturers showed the latest heavy duty gas cooking equipment. The 4,000 square foot Blue Flame area was sponsored by the A.G.A. Industrial and Commercial Gas Section.

A new display motif with exhibitors' names in illuminated panels, together with high intensity flood lighting, made the gas area one of the most outstanding and attractive exhibits of the entire exposition.

In this display of the latest in volume cooking equipment, the American Stove Company demonstrated their new automatic oven lighter on a restaurant type range. A glass insert in the oven floor made it possible to see the automatic lighter in operation. The Detroit-Mich-

igan Stove Company also demonstrated their new oven lighter with automatic safety pilot. This was shown on a special display panel on which all the component parts could be seen and the controls could be demonstrated.

The only other live exhibit was that of Duke Manufacturing Co., where a dry heat table was in operation together with a special display sample burner.

Exhibitors in the combined commercial gas exhibit expressed a highly favorable opinion of this year's hotel show. This was due in a large measure to the screening of visitors by the show management. Of the grand total of visitors registered, 62,814 indicated that they had buying authority.

In addition to the three firms mentioned, the other exhibitors under the Blue Flame Banner were: Anetsberger Brothers, Inc.; The G. S. Blodgett Co., Inc.; The Cleveland Range Co.; Gas Consumers Service; Groen Mfg. Co.; Kewanee Industrial Washer Corp.; J. C.

Pitman & Sons Inc.; Robertshaw-Fulton Controls Co.; Savory Equipment, Inc.; A. O. Smith Corporation; and Vulcan-Hart Mfg. Company.

Commercial gas breakfast

The third annual Commercial Gas Breakfast was held on the last day of Hotel Show Week in the small ballroom of the Roosevelt Hotel, New York. Sixty commercial gas men, manufacturers of heavy duty gas equipment and representatives of publications in the food service field attended one of the largest breakfast meetings held so far.

James A. McCarthy, executive secretary of the Hotel Association of New York City, was the guest speaker. He spoke of the need of training future chefs for hotels and restaurants. As there is no longer an influx of this trained personnel from abroad, the brunt of training cooks and chefs rests on the all-too-few schools.

Mr. McCarthy suggested to his audi-

ence that the manufacturers and the gas companies get together to see that these schools have the latest types of gas equipment for instructing their students. In this manner they would not only be sure to train the prospective cooks and chefs in the use of modern equipment, but also on the modern types in use in the hotels and restaurants throughout the country.

School food service show

The Industrial and Commercial Gas Section had an Information Center in the annual exposition of the American

School Food Service Association, from October 12 to 14, 1951 in the Hotel Statler, New York. Once again gas service was brought to the attention of an important group having direct control over volume feeding operations.

Some 4,000 dietitians, managers of school feeding departments, and board of education executives from all over the United States had the opportunity of consulting with members of the A.G.A. staff who were in constant attendance at the Information Center. Questions were answered regarding gas service and gas equipment, and valuable contacts were made which will enhance

the position of the local gas companies in the territories of schools with large feeding projects.

Expositions of this type, together with the many state and regional shows in which local gas companies exhibit, perform a valuable service for the gas industry. They continue the much needed promotion of gas service for large volume feeding to help retain that important commercial gas load.

Show schedule for 1952

The Industrial and Commercial Gas Section has scheduled participation in five national trade shows during 1952.

At the International Foundry Congress, Atlantic City Public Auditorium, May 1 to 7, the section will operate an information center. Latest information on gas fuel for metal melting and other foundry operations requiring heat will be available.

Next there will be the National Restaurant Exposition, May 5 to 9, Navy Pier, Chicago. It is here that the section sponsors its largest combined commercial cooking exhibit. Some twenty co-operating manufacturers of heavy-duty gas cooking and allied equipment will show their lines.

Another important show, The National Metal Congress and Exposition, Philadelphia Commercial Museum, October 20 to 24, covers the industrial field. A combined exhibit is sponsored in this show for the manufacturers of industrial gas equipment. The show and convention are the annual gathering place of many industrial gas engineers who are also members of the American Society for Metals. Always highlighting Metal Show Week is the annual Industrial Gas Breakfast, which this year celebrates its fifteenth anniversary.

Running concurrently, October 21 to 24 will be the Annual Convention of the American Dietetic Association in Minneapolis. Efforts are being made to develop a combined commercial cooking exhibit for this show. More and more manufacturers are realizing the importance of the dietitian in the selection of cooking equipment in volume feeding operations.

Completing a year of national trade shows will be the combined commercial cooking exhibit in the National Hotel Exposition, Grand Central Palace, New York. This hotel show always has the largest attendance of any event in this field.



At the Commercial Gas Breakfast speakers' table, in the Hotel Roosevelt, New York, November 9, 1951, during Hotel Show Week, were: Jack Hirslehey, Food Service Equipment Industry, Inc.; P. H. Davis, National Association Food Equipment Manufacturers; J. A. McCarthy, Hotel Association of New York City; R. A. Malony, breakfast chairman, Bridgeport Gas Light Co.; H. Carl Wolf, A. G. A.; Armin Kusswurm, National Restaurant Ass'n; Miss Mildred Egeberg, American Dietetic Association



American Gas Association had its information center in a prominent location at the annual exposition of American School Food Service Association, Hotel Statler, New York, November 12-14, 1951

An impressive offensive is mounted against industry operating problems, with top emphasis on safety

Forceful program set for '52

Over 250 persons, representing the more than 3,000 members of the Association's Operating Section, joined in the meetings of their committees and subcommittees at the Hotel New Yorker, November 13-16, 1951. At a total of 43 meetings they drew up the plans for next year's Operating Section activities.

Latest developments in all operating fields will be presented at the Distribution, Motor Vehicles and Corrosion Conference to be held at the Hotel Benjamin Franklin, Philadelphia, April 7-10, 1952, and at the Gas Production and Chemical Conference at the Hotel New Yorker, New York City, May 26-28, 1952.

Detailed information on these two conferences will appear in early issues of the A.G.A. MONTHLY and advance programs will be sent to the delegates of

member gas companies and to individual members of the Operating Section in the near future.

Activities will be reported to the A.G.A. membership through the Editorial Committee under the chairmanship of Channing W. Wilson, vice-chairman of the Operating Section. Members of the section are encouraged to send ideas and suggestions for presentation in the A.G.A. MONTHLY to Dr. Wilson, research chemist, Consolidated Gas Electric Light and Power Company of Baltimore, Lexington Building, Baltimore, Maryland.

During the past year a number of interesting articles have been obtained for the A.G.A. MONTHLY by this Editorial Committee.

Safety will be the keynote for next

year's sectional activities. Always important in the thinking of Operating Section men, safety is under particular emphasis this year in all Association actions. A Special Committee on safety has just been organized to explore the subject of safety thoroughly, and to make broad recommendations for suitable sectional activities and to promote greater safety for the public and gas company employees alike. This committee is at present under the leadership of H. Bruce Andersen, chairman of the section, and its membership is as follows: Chairman, H. Bruce Andersen, The Philadelphia Gas Works Company; Vice-Chairman, C. W. Wilson, Consolidated Gas Electric Light and Power Co. of Baltimore; George G. Dormer, representing Corrosion Committee, Bing-

GAS PRODUCTION COMMITTEE—Front, G. R. Strimbeck, U. S. Bureau of Mines; H. C. King, Rochester (N. Y.) Gas and Electric Corp.; J. Henry Long, Philadelphia Electric Co.; G. J. McKinnon, Michigan Consolidated Gas Co., Detroit; J. W. Carroll, Philadelphia Electric Co.; B. L. Peables, Blackstone Valley Gas and Electric Co., Pawtucket; H. W. Ferris, South Atlantic Gas Co., Savannah; A. E. Lockwood, Ebasco Services, Inc., New York; W. R. Fraser, Michigan Consolidated Gas Co., Detroit; I. J. True, Providence (R. I.) Gas Company. Second row, A. C. Sedlacek, Eastern Gas & Fuel Associates, Boston; B. M. Keys, Washington (D. C.) Gas Light Co.; R. B. Paquette, The Peoples Gas Light and Coke Co., Chicago; C. A. Gallagher, Koppers Company, Inc., Kearny, N. J.; H. R. Batchelder, U. S. Bureau of Mines; O. H. Smith, Consolidated Edison Co. of N. Y., Inc. Third row, S. A. Petrino, Kings County Lighting Co., Brooklyn, N. Y.; A. G. Hall, The Brooklyn Union Gas Co.; C. L. Hulswit, committee chairman, Rockland Gas Co., Spring Valley, N. Y. Fourth row, Forrest Miller, Philadelphia Coke Co.; H. C. Jones, New England Power Service Co., Boston; W. H. Isaacs, The Peoples Gas Light and Coke Co., Chicago; S. W. Horsfield, Long Island Lighting Co., Garden City, N. Y.



DISTRIBUTION COMMITTEE—Front, H. W. Nicolson, Newark, N. J.; J. M. McCaleb, Indianapolis; J. A. Whelpley, chairman, Cincinnati; P. K. Wallace, Tulsa; W. J. Towner, Brooklyn, N. Y.; Karl E. Schmidt, Detroit; T. J. Noonan, Cleveland, and Donald Whitcomb, Providence. Second row, P. B. Thompson, Detroit; K. J. Burnett, Hamilton, Ontario; Gilbert Estill, Tulsa; J. W. Allen, Salt Lake City; F. J. Bunnell, Jackson, Mich.; H. M. Blain, New Orleans; G. L. Sawyer, Detroit; and J. T. Stein, New Orleans. Third row, W. P. Dick, Columbus, Ohio; P. W. Geldard, Toronto; Dean M. Workman, New York; V. F. Bittner, Chicago; A. W. Johnston, Boston; and B. E. Hunt, Chicago. Fourth row, M. K. Wrench, Omaha; H. S. Houghton, Detroit; P. B. Winchel, Knoxville; George B. Johnson, Minneapolis; and E. L. Henderson, Shreveport



CHEMICAL COMMITTEE—Front, R. M. Pearson, Detroit; W. M. Deaton, Amarillo; A. H. Wicht, Garden City, N. Y.; E. G. Hammerschmidt, chairman, Fritch, Texas; W. E. Churchill, Boston; Louis Shnidman, Rochester, N. Y.; A. A. Orning, and W. W. Hodge, Pittsburgh. Rear row, W. B. Kirk, Cleveland; W. W. Allerton, Kingsport, Tenn.; I. B. Dick, New York; D. L. White, Washington; A. E. Sands, Morgantown, W. Va.; W. J. Huff, College Park, Md.; D. V. Kniebes, Chicago; J. R. Cowles, Tulsa; G. V. McGurl, and R. W. Miller, Pittsburgh; D. T. MacRoberts and C. E. Farmer, Shreveport; G. G. Dormer, Binghamton; and F. E. Vandaveer, Cleveland



hamton Gas Works Co.; W. J. Huff, representing Chemical Committee, University of Maryland; George L. Sawyer, representing Distribution Committee, Michigan Consolidated Gas Co.; J. L. Turnan, representing Gas Production Committee, Worcester Gas Light Co.; J. L. Coyne, representing Motor Vehicles Committee, Rochester Gas and Electric Corp.; P. W. Geldard, representing Purging Committee, The Consumers' Gas Co. of Toronto; and V. F. Bittner, member-at-large, The Peoples Gas Light and Coke Company.

Chairman E. G. Hammerschmidt of the Chemical Committee announced that his committee had decided to form the following subcommittees: Planning and Programs; Analyses and Tests; Chemical Aspects of Safety and Accident Prevention; Gas Conditioning; Chemical Luncheon Conferences; Natural Gas Problems; New Developments; Gas Odorization; and Special Advisory Committee. There will also be formed Joint Gas Production and Chemical Subcommittee on Instrumentation.

The Subcommittee on Gas Analysis and Gas Calorimetry has been dissolved. Its functions have been transferred in part to the new Joint Gas Production and Chemical Subcommittee on Instrumentation and in part to the Subcommittee on Analyses and Tests. The Subcommittee on Odorization is interested in further research on odorization to be conducted in cooperation with other organizations.

Corrosion Committee Chairman A. D. Simpson, Jr., reported that the Subcommittee on Corrosion Instrumentation has issued the *Reference Book on Instruments for Electrolysis, Corrosion and Cathodic Protection Testing*. This book has already enjoyed a considerable circulation in the gas industry and it is believed that it will be found helpful to corrosion engineers in other fields. The Corrosion Committee is now working on material for the new edition of the *Gas Engineers' Handbook* as well as a catalog on corrosion problems.

Chairman J. A. Whelpley of the Distribution Committee reported that the 1952 Distribution, Motor Vehicles and

Corrosion Conference would cover a four-day period in order to allow sufficient time for full discussion of the various problems of interest to those attending. This committee recommends that a Committee on Communications be appointed to cover the entire gas industry. The Distribution Committee is particularly interested in safety and has made a number of definite recommendations to the Managing Committee of the section. These recommendations will be referred to the new Special Committee on Accident Prevention for action.

Chairman C. L. Hulswit reported for the Gas Production Committee that some 20 papers were in view for the 1952 Production and Chemical Conference. This conference will have a three-day program with arrangements similar to those in past years.

Motor Vehicles Committee Chairman W. E. Albright, reported the establishment of the following new subcommittees: Accessories, Parts and Supplies; Forms, Records and Operating Statistics; Fuels and Lubricants; Maintenance and



CORROSION COMMITTEE—Front, L. B. Donovan, New York; O. W. Wade and A. D. Simpson, Jr., chairman, Houston; N. P. Peifer, Pittsburgh; F. E. Kulman, New York; W. J. Schreiner, Cincinnati; and A. L. Stegner, Houston. Rear row, H. W. Wahlquist and M. C. Miller, New York; J. O. Mandley, Detroit; Andrew Kellogg, Syracuse; I. A. Denison, Washington; John V. Adkin, Rochester, N. Y.; A. H. Cramer, Detroit; C. W. Beggs, Newark, N. J.; S. E. Trouard, New Orleans; C. A. Bailey, New York; R. J. Young, Cleveland; Morton Bermann, Brooklyn, N. Y.



JOINT A.G.A. MOTOR VEHICLES COMMITTEE—E.E.I. TRANSPORTATION COMMITTEE—Front, C. S. Funk, Hammond, Ind.; R. O. Babcock, New York; W. E. Albright, chairman, Philadelphia; S. G. Page, Pittsburgh; and J. L. Coyne, Rochester, N. Y. Rear, J. J. Logue, Pittsburgh; S. M. Foeller, Detroit; John H. Heil, Chicago; W. H. Head, Manchester, N. H.; A. W. Wagner, Hazelton, Pa.; W. W. McCartney, Cleveland; Linn Edsall, Philadelphia; A. E. Dible, Pittsburgh; R. M. Gregar, Newark; H. J. Chambers, Oklahoma City; O. H. Crowe, Atlanta; L. C. Alexander, Cleveland; Paul W. Rogers, Columbus

Overhaul Procedures; Personnel Selection, Training and Upgrading; Safety and Safe Practices; Shop Tools and Plant Structures; and Vehicle Selection, Utilization and Retirement. The Subcommittee on Drivers' Manual was disbanded since its work was completed with the issuing of the *Drivers' Manual* at the Conference in Memphis in 1951.

A revised *Operating Section Procedure* is in the process of preparation to furnish an up-to-date, convenient guide for committee personnel in organizing the work of the various committees.

The Gas Engineers' Handbook Advisory Committee under the chairmanship of Dr. F. E. Vandaveer has made great strides in organizing the preparation of a new edition of this important work. Ninety-three highly qualified experts in all phases of the gas industry have been enlisted on a voluntary basis to prepare various sections of the new book. The committee hopes to have the revised edition of this most useful text available within the next year or two.

During the past year a special com-

mittee of the Operating Section worked closely with the Engineering Committee of the National Association of Railroad and Utilities Commissioners to review the proposed uniform rules for gas utilities which the NARUC Committee had prepared. After much study on the part of our committee, a draft was discussed at a joint meeting of representatives of both committees. The final report, submitted to the convention of NARUC in September, 1951, embodied substantially all of the A.G.A.-suggested revisions.

During the organization meetings the respective program committees selected the following dates and places for the 1953 Spring Conferences:

Distribution, Motor Vehicles and Corrosion Conference, Hotel Sherman, Chicago, Illinois, April 12-16, 1953.

Gas Production and Chemical Conference, Hotel New Yorker, New York City, May 24-27, 1953.

The next Organization Meetings will be held November 17-20, 1952, at the Hotel New Yorker, New York City.

Corrosion book ready

A.G.A.'S REFERENCE Book on Corrosion Instruments, prepared by Operating Section engineers who have had broad experience in this field, is now available in limited quantity.

The 48-page book, written in non-technical language, covers characteristics and use of corrosion testing instruments; high-voltage inspection of pipeline coatings before burial; location of coating faults on buried pipelines and cables; a vacuum-tube voltmeter for corrosion testing; an electrolysis meter with resistance compensating network; multi-combination meters; and pH measurement of soils and water.

Latest manufacturers' catalog sheets and descriptive circulars on test instruments and equipment, supplied by the manufacturers, are included and indexed.

Revisions and circulars will be sent to all holders of the Reference Book from time to time.

The books are available for \$1.50 a copy from A.G.A. Headquarters.

Pattern for sales

*Two-fisted promotions
set for 1952 to
meet dwindling consumer
disposable income*

By W. J. SCHMIDT

Asst. Vice Pres. & Gen. Mgr.
Long Island Lighting Company,
Mineola, L. I., N. Y.
Chairman, Residential Gas Section

Four years ago, in 1948, the gas industry's Pattern for Sales was crystallized through the adoption of a long-range planning program. The Residential Gas Section, in cooperation with the National Advertising Committee, the General Promotional Planning Committee and the Promotional Bureau, specifically designed the plan to achieve the following major objectives:

1. To integrate and coordinate all sales promotional and advertising activities of the Association, gas utility companies and gas appliance manufacturers.
2. To make it possible for the National Advertising Committee to coordinate national advertising with Association promotional campaigns.
3. To make it possible to prepare and distribute to the gas industry a schedule of the coming year's advertising and promotional campaigns, to facilitate tie-in with such programs at the local level by gas utility companies and dealers, at the national and local level by gas appliance manufacturers.
4. To provide sufficient time for the A.G.A. Promotional Bureau to produce and distribute portfolios and other materials so that they are available to gas utility companies at least six weeks in advance of a campaign's starting.

The year 1952 will undoubtedly present many complex problems. With the nation's defense program getting into full swing, shortages of manpower, money and materials, will substantially decrease civilian production.

Cutbacks in steel and other critical materials through the first three quarters of 1952 may reach fifty percent of those materials available during the same period in 1950. On the basis of discussions with many gas appliance manufacturers, appliance production in 1952 will approximate that of 1949, which was a good production year. The advent of increased taxes, credit restrictions, higher living costs, competitive efforts and other factors will make it necessary to increase gas industry sales and promotional activities to sell even limited production during 1952.

All of the sales promotional and advertising campaigns are subject to constant scrutiny and review in the light of conditions which exist at the time they are to be put into effect. While the early post-war era following World War II found our industry marking time, our competitors were actively engaged in perfecting their services and in increasing their sales and promotional activities. It is obvious that we cannot afford to repeat this error. We must make our plans and design our programs so that we are ready for immediate action.

Under the section's program of long-range planning, all the committees have completed their plans and programs for the coming year.

a PAR activity

American Gas Association's 1952 February-March sales campaign is new and fresh—indeed, it's "Fresher Than All Outdoors." For the first time, the Promotion Bureau will offer a complete package to help sell the automatic gas clothes dryer, the modern appliance that is saving hours of labor.

To help utilities and dealers sell more automatic gas clothes dryers, A.G.A. will provide one five-foot die cut display, a giant 22" x 28" poster, jumbo price tags, a literature holder, towel banners and 20 copies of the promotional booklet "You'll Be in Clover 10 Times Over with a New Automatic Clothes Dryer."

In addition, A.G.A. has arranged a traffic-boosting guessing contest in which a number of towels, some dryer-dried, some fresh air-dried, would be hung on a clothes line on the sales floor. The winning prize, a Cannon turkish towel set of finest quality—six bath towels, six hand towels and six washcloths—would be awarded to the contestant who can correctly determine which pieces on the line are dryer-dried, which are fresh air-dried. A.G.A. will also supply separate wash cloths and hand towels for floor demonstration give-aways. Details of this offer will be included in the Residential Gas Section portfolio, soon to be mailed to utilities.

The 34-piece display kit is available

Gas dryer campaign

● **February and March—Gas Water Heating Campaign**—The 1952 program is based largely on an attempt to create more sales of automatic gas water heating equipment by the plumber and dealer. The theme, "Ask your plumber-dealer," will be included in the Association's national advertising schedule during February and March. (See page 30, December MONTHLY.)

The Gas Water Heater Division of GAMA is supplying copies of the publication, "Our Health—Our Strength" which has been widely distributed to various governmental agencies, schools, colleges, health agencies and consumer groups in all parts of the country. This publication will be made available to gas utilities at minimum cost for local distribution. Also being prepared by GAMA is a brochure, "Ask Your Plumber." This publication includes a check list for the homemaker to evaluate the hot water system.

● **February and March, August and September—Gas Clothes Dryer Campaign**—The modern automatic gas clothes dryer, a relatively new member of the family of modern gas appliances, presents a challenge and an opportunity to the industry. Despite known superiority of the modern gas clothes dryer from the standpoint of speed, installation and operating costs, national sales figures indicate that gas clothes dryers are being outsold at a rate of from three-to-four-to-one, by electric dryers. Much progress has been made since the organization of the A.G.A. Gas Laundry

Dryer Committee several years ago. A number of manufacturers report substantial gas utility interest to promote and sell the gas clothes dryer at the local level. This interest is reflected in increased gas clothes dryer sales.

The theme of the 1952 program will be "Fresh as all outdoors," which will be featured in the campaign materials and in A.G.A. national advertising during the months of February and March, with major emphasis in August and September.

● **April, May and June—Gas Range Campaign**—The 1952 spring gas range promotion will again feature a motion picture tie-in with the MGM technicolor production, "Lovely to Look At," starring Red Skelton, Kathryn Grayson and Howard Keel. (See page 31, December MONTHLY.)

The essential aim of the promotion is to connect glamor with automatic gas cooking and to bring a spring-like and sprightly appearance to all gas utility and dealer showrooms.

● **April, May and June—Gas House Heating Campaign**—The 1952 Gas House Heating Campaign will follow the format of the 1951 program. Companies faced with restrictions on the sale of gas for heating will find promotional material to upgrade obsolete equipment and to sell new appliances. Included as part of the campaign will be the "Gas House Heating Sales Maker," a complete and comprehensive sales manual for use by gas company and dealer salesmen; the gas house heat-

ing consumer booklet, "10 Predictions for Fair and Warmer when you Heat Your House with Gas," and suggestions relative to the organization and conducting of upgrading and sales promotional campaigns.

● **April, May and June—Gas Summer Air Conditioning Campaign**—During the past several years, the Gas Summer Air Conditioning Committee in cooperation with the Promotion Bureau has been directing its efforts to get gas company top management to promote and sell gas summer air conditioning at the local level. These activities include the preparation and distribution of reports highlighting the benefits to the gas company from the standpoint of additional operating profit without added capital investment, insuring the base load, and filling the valleys in summer load.

Considerable progress has been made, and consumer acceptance of air conditioning is at an all-time high. While a large market exists in the domestic and residential fields, the sale of gas summer air conditioning is hindered by the lethargy of many gas utilities and by restrictions on gas for heating in many sections of the nation. It is believed that as natural gas becomes more generally available in former manufactured gas areas, many gas companies will become more aggressive in promoting the gas summer air conditioning load.

The 1952 campaign will stress the advantages of the load and how to promote and sell it. The "Gas Summer Air

(Continued on next page)

for \$5.35, f.o.b., Chicago. If ordering five or more, the cost is \$4.95 per kit, f.o.b., Chicago. The towel sets can be bought in minimum shipments of 12 sets at \$6.77 per set, while individual wash cloths are available, in minimum shipments of 15 dozen, for \$1.90 a dozen. The individual hand towels are priced at \$3.90 per dozen, in minimum shipments of five dozen.

This offer is explained, in greater detail, in a portfolio mailed to utilities during January.

Promotional material should be ordered from: American Gas Association, Promotion Bureau, 420 Lexington Ave., New York 17, New York.



A poster is available to aid in promoting the sale of automatic gas clothes dryers

Conditioning Sales Maker," and the consumer booklet entitled, "10 Ways To Take A Year-Round Vacation With Gas Air-Conditioning," will again be available to local gas companies. In addition to these materials, Servel, Inc., has prepared a comprehensive booklet entitled, "Servel Air Conditioning And You—A 'Partnership For Profit' In '52," which is now being distributed to all gas utilities. Servel will continue advertising in the various architectural and building

magazines, with a special series of advertisements in "Fortune" magazine.

A series of regional "round-table" conferences on gas summer air conditioning will be held early in the summer, two along the eastern seaboard and two in the midwest. Representatives of gas utility companies in these areas will be invited to conduct such meetings. At this time they will furnish full information and details of their local gas summer air conditioning sales promotional and ad-

vertising programs including such information as organization of program, problems which were met and solved, installation and service, revenues and other pertinent data. Each presentation at the four regional "round-table" conferences will be reproduced and printed in booklet form for distribution to the industry.

A.G.A.-Servel Gas Summer Air Conditioning Progress Award will continue.
(Continued on page 42)

Inspirational program for A.G.A. workshop

Sales promotion ideas, successful home service activities and know-how experiences will be featured on the three-day program of the A.G.A. Home Service Workshop, Drake Hotel, Chicago, January 21-23, 1952. Capable speakers from within and without the industry have been scheduled by the program committee under leadership of Flora G. Dowler, The Manufacturers Light and Heat Co., Pittsburgh, chairman of the A.G.A. Home Service Committee.

The program will open in the Grand Ballroom of the Drake Hotel with an address: "Spotlight on Home Service," by Chairman Flora G. Dowler. Varied activities in home service will be discussed at a symposium. Lolita Harper, The Cincinnati Gas and Electric Co., will lead a discussion on "Home Service Literature." Dorothy Pearson, The East Ohio Gas Co., Cleveland, will present "Home Service and the Dietitian" as her topic. A report on a recent survey on broilers will be given by Eleanor Wiese, Public Service Electric and Gas Co., Newark, New Jersey. Gladys B. Price, Southern California Gas Co., Los Angeles, will introduce the subject "Teachers' Institutes."

Helen C. Hamilton, Corn Products Refining Co., will talk on salad and cooking oils. Kathryn Johnson, Rockland Gas Co., Spring Valley, N. Y., will give an address titled: "A Good Discussion Depends on You."

Miss Dowler will preside at a conference luncheon, at which F. X. Mettenet, vice-president of the local gas company, will welcome delegates to Chicago. Mary I. Barber, food consultant with the Office of the Quartermaster General, Battle Creek, Mich., will talk on: "The Home Economist in the News—Cook Books and Civil Defense."

Eight discussion groups will meet in the afternoon under the following lead-

ers: M. Thelma Bly, Central Electric and Gas Co., Lincoln, Neb.; Mildred Endner, Minneapolis Gas Co.; Dorothy Healy, Allentown-Bethlehem Gas Co.; H. Dorothy Keller, Blackstone Valley Gas and Electric Co., Woonsocket, R. I.; Icydora Miller, The Gas Service Co., St. Joseph, Mo.; Florence Neely, Consolidated Gas Electric Light and Power Co., Baltimore; Winnell Simmons, Houston Natural Gas Corp.; and Lucy Slagle, Atlanta Gas Light Company.

Meetings on Tuesday, January 22, will be held at the home service auditorium, The Peoples Gas Light and Coke Company. Elizabeth Lynahan will preside at the morning session and Irene Muntz will direct the afternoon session. There will be a conducted tour of the gas company kitchens and the display and home planning departments directed by Harry Swenson of Peoples.

Dorothy Longmore, The Manufacturers Light and Heat Co., will give a school demonstration, "Sparkle Plenty." A review of controls and ignition on modern gas ranges will be presented by H. W. Geyer, director, West Coast Laboratory, Robertshaw-Fulton Controls Co., Los Angeles. Julia Hunter, Lone Star Gas Co., will give a refrigerator demonstration at the afternoon session. Ruth Gaffney, equipment editor, *Today's Woman*, will speak on "Reaching Today's Homemaker." A panel discussion, "Training for Home Service," will be led by Eleanor Morrison, assisted by panel members: Mary E. Boaz, Arkansas Western Gas Co.; Sallie M. Dannenberg, Pueblo Gas and Fuel Co.; Betty J. Frahm, Montana-Dakota Utilities Co.; Mary E. Ryan, Perfection Stove Co.; Virginia Stacy, The Ohio Fuel Gas Co.; and George E. Ludwig, Michigan Consolidated Gas Co., Muskegon, Michigan.

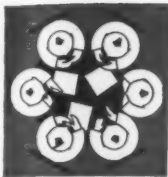
Miss Dowler will preside at the meeting on Wednesday morning in the hotel

ballroom. Two A.G.A. sound slide films, "Heart of the Home," and "Johnny Takes a Journey," will be shown. A skit on laundry promotions will be presented by Margaret Doughty of Bendix Home Laundry Institute, South Bend, Ind., and Susan A. Mack, Boston Consolidated Gas Co., Massachusetts.

At a symposium "Here and There With Home Service," work done by her company in "Classes for the Blind" will be described by Marjorie Chandler, The Consumers' Gas Co. of Toronto, Ontario. Vivian Marshall will talk on club contacts and Mary Huck and Pauline Wheeler will present Ohio Fuel Gas Company's hot water puppet show, "Out of the Ordinary."

Elizabeth Lynahan will be chairman at the conference luncheon on Wednesday. Her guest speaker will be George F. Mitchell, president of A.G.A., and president, The Peoples Gas Light and Coke Company. Mr. Mitchell will review the new records of the gas industry for 1951. Catherine Haigler, The Brooklyn Union Gas Co., will talk on "Investors' Relations Luncheons," and R. H. Morris, Newtown, Conn., mail consultant, will discuss "You and Your Letters." A forecast for home service in 1952 will be made by W. J. Schmidt, chairman, A.G.A. Residential Gas Section, and assistant vice-president, Long Island Lighting Co., Mineola, New York.

Miss Dowler was ably assisted in arranging the program by Vivian L. Marshall, New Orleans Public Service, Inc.; Eleanor Morrison, Michigan Consolidated Gas Co., Grand Rapids; Irene L. Muntz, Rochester Gas and Electric Corp.; and Ruth Sheldon, Washington Gas Light Company. Elizabeth J. Lynahan, The Peoples Gas Light and Coke Co., is in charge of local arrangements, and Jessie McQueen, A.G.A. home service counsellor, of general arrangements.



Industrial relations round-table

Prepared by
A. G. A. Personnel Committee

Edited by Bernard H. Kinzer

● **Procedure for military deferments in gas industry**—The Petroleum Administration for Defense will try in special cases to get deferments from military duty for key gas industry personnel. Bruce K. Brown, deputy petroleum administrator, said his agency would intervene when "all normal procedures for appeal from an induction order or a recall to active duty from the reserves have been exhausted."

PAD intervention will not apply to (1) graduates of the service academies or recent graduates of Reserve Officer Training Corps programs, (2) cases involving only hardship to the individuals concerned, and (3) cases in which the person to be deferred does not know of and approve the application for special consideration.

In all other cases, rigid standards will determine whether PAD will endorse an employer's request for special consideration. The person for whom deferment is sought must be (1) a key managerial or executive official in an occupation in the list of critical occupations published by the Department of Labor or an occupation equally critical in essential petroleum industry operations, (2) engaged full time in an activity included in the list of essential activities published by the Department of Commerce or in the production of oil field equipment and machinery, tetraethyl lead, catalyst, or similar items for which PAD has responsibility, (3) irreplaceable without material loss of effectiveness in the activity in which he is engaged, and (4) adequately trained for the work in his occupation. Further information and requests for assistance in obtaining deferments should be addressed to Manpower Division, Petroleum Administration for Defense, Washington 25, D. C.

● **Shortage of engineers**—Lawrence P. Lesing, the author of *A Helluva Shortage of Engineers*, *Fortune* (9 Rockefeller Plaza, New York 20, N. Y.), September, 1951 predicts that the shortage of engineers, far from easing, will grow worse and that through 1952 and 1953 it will become more critical to the welfare of the nation than the shortages of steel, chromium or the other base materials of engineering. Before any lasting solution can be found to the shortage of scientific and technical personnel, a long-needed shift in national attitude may be required to restore much of the prestige and glamour which have been departing from the pursuit of the sciences.

● **How to keep your employees happy**—The check list by John B. Bennet, *How To Keep Your Employees Happy, Mill & Factory* (295 East 42 Street, New York 17, N. Y.) September, 1951 gives a comprehensive tabulation and brief discussion of many non-financial means for helping employees, gaining their good will,

and minimizing turnover in a tight labor market. This listing is divided into four major groups containing suggestions concerning (1) working environment and conditions; (2) recreational and service facilities; (3) extra services for employees; and (4) "minor" policies for good human relations.

● **Reading classes**—To make sure New York Port Authority employees read the revised handbook, group meetings of not more than 20 employees were held from top management right on down to the rank and file. Book was read aloud and policies on which there were questions were discussed. Management claims that reading plus fuller explanation and understanding of practices have cut grievances by about 75 percent. For a copy of *Guide for Port Authority Personnel*, write: John Foster, personnel director, Port of New York Authority, 111 8th Ave., New York.

● **The keys to sound supervisory relations**—During World War II, foremen were called the forgotten men of industry. The present emergency may again cause supervisory unrest unless management takes some positive preventive measures. Here are 11 practical pointers which are basic in establishing good foremen relationships.

1. Clearly define the foreman's job and its place in the organization. Then be sure you let him know about it.

2. Listen to your foreman. Get the benefit of his intimate knowledge of what goes on at the firing line.

3. Keep the personnel department as a staff aid to the foreman. Don't let personnel be a crutch to him.

4. Don't bypass the foreman in making policies he is expected to administer.

5. Train the foreman's boss, so he's a good supervisor, too. Often the foreman's weaknesses are really those of his boss.

6. Keep the foreman informed of what's going on. Set up channels to beat the grapevine.

7. Impress foremen that they speak for management when they speak. That means you must back up their decisions.

8. Don't forget the "little things" that help give the foremen prestige and status such as not having to punch a clock, reserved parking space and an office.

9. Give proper recognition and credit to foremen for extra performance and activities, including community activities.

10. Set up objective methods for picking really well-qualified men, then train them thoroughly. Get them started right.

11. Last, and most important; Know your foreman—intimately, and on a cordial, lastingly sound basis.

● **Foremen's safety instruction for workers**—The Firestone Rubber Company, Akron, requires its foremen to talk to each worker on some phase of safety once a month. These talks must be on an individual, not a group basis. Foremen also must file a monthly report on a

printed form, indicating the date on which they spoke to specific employees, the names of the employees and the subjects covered during the month. The forms serve as a systematic reminder to the foremen. In any event, when accidents occur management finds out whether the worker involved had a session on safety with the supervisor during the month and, if not, the foreman can be "put on the mat."

● **New wage rate surveys planned by BLS**—The Division of Wages and Industrial Relations of the Bureau of Labor Statistics has disclosed plans for major overhauling of its wage rate surveys which reportedly will become the most important part of the division's work. The expanded surveys are designed to provide wage data needed for purposes of the federal wage stabilization program by the government, management and unions. The plans call for wage surveys in forty large cities in the fiscal year 1952 as against eleven such surveys made in the fiscal year 1951. As a by-product the BLS in 1952 will issue "industry-locality" studies for twenty-one industries. In addition, nation-wide studies will be done for thirteen basic industries, including petroleum refining and production; industrial chemicals; paper, pulp and paperboard; air-frames; aircraft engines and engine parts; and fabricated structural steel. The new program was determined jointly by the BLS and Wage Stabilization Board and will be partly financed by WSB.

● **Forecast defense manpower needs**—An increase of more than seven million persons in total manpower needs for defense is expected between the fourth quarters of 1950 and 1952, according to a recent report by the Bureau of Labor Statistics on the defense program requirements of the United States. Almost five million will be added during 1951. This forecast of total manpower includes workers engaged both in direct and indirect defense production.

In addition to the normal growth of the labor force, the projected expansion in employment will depend upon the entry of women and older, younger, and handicapped workers into the labor market beyond the utilization already being made of these reserve groups. The Bureau's new report indicates, however, that shortages will develop in the supply of selected skilled workers in manufacturing, air transportation, office personnel, and for specified professional workers.

Single copies of the complete report, entitled *Manpower Requirements and Supply for the Defense Program, 1951-1952*, are available without charge from the New York office of the Bureau of Labor Statistics, 341 Ninth Ave., New York 1, N. Y.

● **They've never had it so good**—Robert R. Behlow, of the U. S. Bureau of Labor Statistics, has reported that a survey conducted recently by that group has revealed that, since 1948, wages of New York's white collar workers have risen 15 to 20 percent, while the

(Continued on page 40)

Industry news

Committee appointed to Review PAR plan

A NEW GENERAL COMMITTEE of the American Gas Association has been appointed to review the Promotion Advertising and Research Plan of the Association. George

F. Mitchell, president of A.G.A. and president, The Peoples Gas Light and Coke Co., Chicago, has announced that the new committee will evaluate experience with the PAR Plan to date, and will make recommendations to the Executive Board of A.G.A. concerning any necessary revisions.

R. J. Rutherford, president Worcester Gas Light Co., Worcester, Mass., is chairman of the new committee. Members include: M. A. Abernathy, vice-president, United Gas Pipe Line Co., Shreveport, La.; Ernest R. Acker, president, Central Hudson Gas & Electric Corp., Poughkeepsie; Stuart M. Crocker, chairman of the board, Columbia Gas System, Inc., New York; Charles H. Gueffroy, president, Portland Gas and Coke Co., Portland, Oregon; John L. Haley, vice-president, Niagara Mohawk Power Corp., Syracuse, N. Y.; and Robert W. Hendee, president, Colorado Interstate Gas Co., Colorado Springs, Colorado.

Also appointed to the committee were W. M. Jacobs, vice-president, Southern California Gas Co., Los Angeles; Frank H. Lerch, Jr., chairman of the board, Consolidated Natural Gas Co., New York, N. Y.; J. F. Merriam, president, Northern Natural Gas Co., Omaha; Dean H. Mitchell, president, Northern Indiana Public Service Co., Hammond; James F. Oates, Jr., chairman, The Peoples Gas Light & Coke Co., Chicago; and Albert B. Paterson, president, New Orleans Public Service Inc.

Additional members are Hudson W. Reed, president, The Philadelphia Gas Works Co.; J. French Robinson, president, Consolidated Natural Gas Co., New York; Rock G. Taber, president, Atlanta Gas Light Co.; and Edward J. Tucker, vice-president and general manager, The Consumers' Gas Company of Toronto, Canada. Eugene D. Milener, American Gas Association, will serve as secretary of the committee.

A.G.A. 1953 Convention slated

THE 35TH ANNUAL A. G. A. Convention, which is expected to attract 5,000 gas industry delegates, will be held at St. Louis, Mo., during the week of October 26, 1953. Site of the convention was recommended by

the A. G. A. Time and Place Committee under the chairmanship of Oliver S. Hagerman, United Fuel Gas Co., Charleston, West Virginia. The committee's report was approved by the A. G. A. Executive Board.

The 1952 convention will take place the week of October 27 in Atlantic City, N. J. Gas Appliance Manufacturers Association will conduct its biennial exhibit in connection with the convention.

Short course announced

THE ANNUAL SHORT COURSE in gas technology, offered for the seventh time by the Texas College of Arts and Industries, will be held May 29, 30, and 31, 1952 at Kings-

ville, Texas. The course is sponsored by Southern Gas Association.

Some of the nation's leading gas men will discuss problems encountered in the produc-

tion, transmission and utilization of gas. Classroom work will be supplemented by field and laboratory demonstrations. The complete program will be released on April 1.

Gas flame hottest on record

THE HOTTEST FLAME that man has ever created, fluorine burning in hydrogen at 8,000° F., has been described by Dr. A. V. Grosse of Temple University's Research Institute. The report was made at a meeting celebrating the National Bureau of Standards fif-

tieth anniversary.

Comparing the flame directly with the sun, Dr. Grosse and his team found that at ordinary atmospheric pressure the temperature was 7,000° F., which increased to 8,000 degrees when under five atmospheres pressure. The

sun temperature is 9,000° F. With higher pressures, Temple University scientists expect to reach sun temperatures on earth.

So far, the hydrogen-fluorine flame has no industrial use.

Utility may sell gas facilities

JERSEY CENTRAL POWER & LIGHT CO., Asbury Park, has accepted a proposal submitted by County Gas Company for purchase of Jersey Central's gas service facilities.

The agreement, subject to a definitive sales contract satisfactory to both companies, must also be approved by the Public Utility Commissioners of New Jersey and the SEC. E. H. Werner, president of Jersey

Central, disclosed that negotiations had been in progress for some time.

Jersey Central Power and Light now serves approximately 73,000 gas customers. The sale will not affect electric operations.

A.G.A. announces new publications

Listed here are publications released by American Gas Association during November and December, up to closing time of this issue of the MONTHLY. Information in parentheses indicates audiences for which each publication was designed.

Statistical

● **Monthly Bulletin of Utility Gas Sales** (for sales managers, statisticians, banks, investment houses, newspapers, appliance manufacturers). Available from A.G.A. Bureau of Statistics, free.

● **Quarterly Report of Utility Gas Sales—Third Quarter** (for gas companies, security analysts, regulatory groups, college libraries). Available from A.G.A. Bureau of Statistics, free.

Research

● **Investigation of the Pressure Characteristics and Air Distribution in Box-Type Plenums for Air Conditioning Duct Systems** (for utilities, manufacturers, installers, architects). Prepared by S. F. Gilman, R. J. Martin and S. Konzo of the University of

Illinois, and the Committee on Domestic Gas Research, under the auspices of the PAR Plan. Available at A.G.A. Headquarters, 80 cents a copy.

● **The Corrosion of Metals and Materials by the Products of Combustion of Gaseous Fuels** (for manufacturers, utilities). Prepared by H. A. Pray, R. S. Peoples, C. T. Sims and Earl White of the Battelle Memorial Institute, and the Domestic Gas Research Committee, under the auspices of the PAR Plan. Available at A.G.A. Headquarters, \$1.00 a copy.

Southern Union opens new office building

SOUTHERN UNION GAS CO. played host to more than 1,000 local residents recently when a new office building was opened in Albuquerque, New Mexico.

Of modern Southwestern architecture, the \$350,000 building is of terra cotta blocks and plate glass. A hospitality room, which will accommodate 150 persons and which will be made available for public use, occupies the entire second floor. The hospitality room's all-gas kitchen is equipped with an overhead slanting mirror, to enhance cooking demonstrations.

Other modern conveniences are an all-year gas air conditioner, as well as a 24-hour depository at the front of the building through which customers can pay their bills on Sundays and holidays.

The new building is Southern Union's headquarters for the district, which includes 12 towns and cities in northwestern New Mexico. It is part of the company's \$7,000,000 improvement and expansion program for the past year.



Natural gas appliances on display at open house, held recently by Southern Union to show its new office building in Albuquerque to the public. Company now serves more than 36,000 customers in Albuquerque

Gold plated meter for millionth home

A GOLD-PLATED OCCASION was celebrated in New Jersey on December 20, when the Public Service Electric and Gas Co., Newark, installed its one millionth gas meter. The meter was appropriately plated in gold by the manufacturer, and turned on by Frederick A. Lydecker, vice-president in charge of gas operations.

Installed in the home of Mr. and Mrs. Robert M. Shanklin, Ashwood Drive, Livingston, the meter made Public Service the fourth utility in the country to reach the million mark.



Frederick A. Lydecker, vice-president in charge of gas operation, Public Service Electric and Gas Co., Newark, N. J., opens valve on one millionth gas meter installed in utility's territory. At left is Robert M. Shanklin, Livingston homeowner who won the gold plated meter and automatic gas clothes dryer

Safety committee meets

THE FIRST CONFERENCE of the Wisconsin Utilities Association's newly-organized Gas Safety Code Committee was held on November 29. Representatives of public service and industrial commissions met to discuss the preparation of a safety code and problems concerning local services and mains. Long-distance pipeline safety was a secondary consideration of the group.

The committee met under the chairmanship of G. G. Ellerbrock, assistant manager of the Wisconsin Public Service Corp., Oshkosh.

Statistics of the month

● **Utility gas sales**—October, 3,602 million therms, up 13.3 percent over 3,179 million therms in September and up 16.0 percent over 3,104 million therms in October 1950.

● **Gas-fired central heating equipment**—November preliminary GAMA figures, 56,100 units, down 25.8 percent from 75,600 units in October and down 12.6 percent from 64,200 units in November 1950. (Breakdown: 40,500 gas-fired furnaces—forced warm air and gravity; 4,500 gas-fired boilers; 11,100 gas conversion burners).

● **Oil-fired burners**—first eleven months, 649,973 installations, according to GAMA, down 13.0 percent from 747,719 installations during the same period of 1950.

● **Domestic gas range shipments**—November preliminary GAMA statistics, 188,400 units, down 8.8 percent from 206,800 units in October and down 30.0 percent from 269,100 units in November 1950.

● **Electric range shipments**—October, 126,000 units, up 14.5 percent from 110,000 units

in September, but down 15.5 percent from 149,100 units in October 1950.

● **Automatic gas water heater shipments**—November preliminary GAMA report, 145,300 units, down 7.8 percent from 157,700 units in October and down 29.5 percent from 206,000 units in November 1950.

● **Electric storage water heater shipments**—October, 67,900 units, up 26.6 percent over 53,600 units in September, but down 28.2 percent from 94,600 units in October 1950.

Gas changeover supplement ready

A SUPPLEMENT to the comprehensive *Bibliography on Changeover from Manufactured to Natural Gas*, 1928-April, 1950, prepared by the A. G. A. library staff, is now available without charge. The supplement lists 28 articles published from May, 1950 through

October, 1951. It covers problems in public relations, gas mixing and interchangeability, conditioning, distribution, meters, service work, rates and management problems set forth in articles which have appeared in the MONTHLY, other association publications and

gas trade journals.

Requests for copies of the supplement or the original bibliography should be addressed to Mary E. Agee, librarian, American Gas Association, 420 Lexington Ave., New York 17, New York.

New sales viewpoint advocated

THE SALE OF 3,500,000 refrigerators in 1951 will mean that by year's end 90 percent of the nation's homes will have automatic refrigeration, according to W. Paul Jones, president of Servel, Inc.

To find the best possible means of developing a replacement market, Mr. Jones advocates a sales program with the theme of "making the two-refrigerator household as familiar as the two-car garage."

The second refrigerator would be different in design, shape and size from the standard kitchen type model, making special provision for the many items not actually table foods but which must be kept in the refrigerator.

Pittsburgh utility sponsors Christmas contest



The Manufacturers Light and Heat Co., Pittsburgh, recently sponsored a Christmas centerpiece contest in nine suburban junior and senior high schools. Winner Nancy Winters appeared in local TV program "Kay's Kitchen" where she explained how she made entry. From left to right, Nancy Winters; Kay Neumann, TV show star; Flora Dawler, Manufacturers Light and Heat home service director and 1952 chairman of the A. G. A. Home Service Committee; Mrs. Dorothy Longmore and Millicent Bibba, gas company home economists who arranged contest. Prize was a portable radio for winning centerpiece

NEGA discusses natural gas merchandising



Panel group and speakers at New England Gas Association sales managers conference, Boston, December 13, are (left to right, front row): NEGA President Gordon Howie, Cambridge; Past-President J. J. Quinn, Boston; Joseph K. Rainey, New Bedford, Mass.; Roy E. Wright, Cambridge. Rear row: Alvin Zises, Boston; Frank H. Trembly, Jr., Philadelphia; Langley C. Keyes, and Henry A. Kievenaar, both of Boston

ASA elects 1952 officers

ROGER E. GAY, president of The Bristol Brass Corp., Bristol, Conn., has been named president of American Standards Association. Mr. Gay is the tenth president of the 33-year-old association, a federation of technical societies, trade associations, and individual companies working in national industrial, engineering, safety and consumer standards.

Edward T. Gushee, vice-president of Detroit Edison Co., was elected vice-president of the association.

A.G.A. is a member of ASA and an active participant in the development of gas appliance standards and other pertinent national standards.

Newly elected directors are: Willard Chivalier, executive vice-president, McGraw-Hill Publishing Co., New York, and R. D. Bonney, manager of manufacturing, Congoleum-Nairn, Inc., Kearney, N. J., representing the American Society for Testing Materials.

Reelected directors are: Mr. Gay, representing the Copper and Brass Research Association; Hoyt P. Steele, executive vice-president, Benjamin Electric Manufacturing Co., Des Plaines, Ill., representing the National Electrical Manufacturers Association; R. A. Colgan, Jr., Shasta Forests Co., Reading, Cal., representing the National Lumber Manufacturers Association; Ardenia Chapman, dean of the College of Home Economics, Drexel Institute of Technology, Philadelphia, representing the American Home Economics Association.

Pipeline delayed

NORTHEASTERN GAS Transmission Corp.'s plans for a pipeline across Fairfield County, Connecticut will be held up at least until next spring. Weather and legal difficulties have been blamed for the delay.

Legal hitches include the constitutionality of a state law permitting condemnation of land for pipeline right of way, as well as a petition by the company for immediate possession of the land. Both cases are now before the state Supreme Court in Bridgeport.

Although Northeastern's 1951 construction schedule has been completed in Massachusetts, it has completed only two small portions of the Connecticut line. One section crosses the Housatonic River near Shelton, and the other crosses the Farmington River near Winsted.

Southern California opens new office

IN ORDER TO KEEP PACE with the tremendous and continuing growth of Inglewood, Hawthorne, Torrance, the beach cities and adjoining communities, Southern California Gas Co., Los Angeles, has formed a new division to administer the area's business.

F. M. Banks, president and general manager, announced that Inglewood is the head-

quarters. The newly created operating unit, which is to be called "Southwest Division," opened on November 1. Lester E. Green, former district manager in Hollywood, has been appointed division manager. W. G. H. Russell will continue as commercial manager in the new division.

A.G.I. Proceedings available

FOR SALE—one set of American Gas Institute Proceedings, dating from 1907 to 1916. This valuable addition to a gas industry library is being offered by Charles G. Herring

of Canada. Interested buyers may contact Mr. Herring at 4 Airdrie Road, Apartment Lower 8, Leaside, Toronto 17, Ontario.

Utility advertising men meet

ABOUT SIXTY ADVERTISING and public relations executives from public utility companies in New York, Pennsylvania, Delaware and Maryland attended the annual Region 2 meeting of the Public Utilities Advertising Association. Held December 7, 1951,

at the Advertising Club of New York, 35th St. and Park Ave., New York, the meeting was staged by an intercity committee headed by Ray Martin, director of advertising, Consolidated Edison Co. of N. Y., Inc.

Manufacturers announce new products

● **Automatic storage gas water heater**—introduced by the Seidelhuber Iron & Bronze Works, Inc., Seattle. Quality features include 3/16 boiler plate, magnesium anodic rods in storage tank, and 100 percent shut-off. Available nationally through plumbing

and hardware jobbers.

● **Gas wall heater**—new addition to Perfection Stove Company's line. Heater has three radiants, produces instant radiant and circulating heat, has output of 10,000 Btu. Con-

Range model ready



A Universal range, ideal for small kitchens and built to "CP" standards, has been introduced by Cribben & Sexton Co., Chicago. It features a new "wheel-about" table top storage cart that slides in and out of space usually occupied by drawers. The range also has a fluorescent light, an electric clock and a timer with precision setting for automatic cooking. A convenience outlet can be used for attaching appliances

stant flow of cool air through louvers insulates sides and back so wall never gets hot. Has self-locking shut-off valve. Particularly designed for use in small areas such as bathrooms and dens.

Personnel changes made by manufacturers

● **Servel, Inc.**—Robert Stevens has been named advertising manager. Mr. Stevens has served Servel since 1946, and was sales manager of the Servel New York Corp., the company's distributing subsidiary for the Greater New York Area. Clifford A. Stockhoff will take Mr. Stevens' place as dealer sales manager of Servel New York Corporation. He was formerly district sales manager at Columbus, Ohio.

Gordon J. Malone, formerly district sales manager in the Philadelphia area, was appointed eastern regional manager. He succeeds George R. Copeland, who resigned recently to become vice-president of Algonquin Transmission Co., Boston.

● **American Meter Company**—Earl B. Custer has been appointed assistant to the vice-president in charge of sales. He has been active in American Meter Company's mid-western sales program.

Joseph L. Kiraly has been named assistant to the vice-president in charge of production. Prior to his association with American Meter, Mr. Kiraly was with Stevenson, Jordan and Harrison, New York management consultants.

● **Perfection Stove Company**—J. H. Rasmussen is the newly-appointed vice-president in charge of all Perfection's cooking and heating appliance sales. Formerly president and owner of the J. H. Rasmussen Co., manufacturers' representatives, Mr. Rasmus-

sen has had wide experience in the appliance field.

● **Peerless Heater Div., Eastern Foundry Company**—Ray G. Pinkerton has been named sales manager. He will direct sales of Peerless boilers for all fuels and Peerless tank heaters for coal firing. Mr. Pinkerton was formerly with Eureka-Williams Corporation.

● **American Stove Company**—Lewis M. White has been appointed manager of the newly created parts division. In this post, he will administer centralized parts replacement for all Magic Chef products. Mr. White was formerly manager of the customer accounting department. Simultaneously, George W. Rogers was named manager of the customer accounting department.

● **Surface Combustion Corporation**—Frank B. Persson has been appointed special representative for the corporation's Janitrol Domestic-Commercial Space Heating Division. He will represent the firm in all types of government and military installations requiring space heating equipment.

● **Chambers Corporation**—Russell Gardner has been appointed head of the newly created builders' division, Chambers Illinois Corp., distributors for the Chambers Corp., Shelbyville, Indiana.

In his new post, Mr. Gardner will stress a close coordination with builders, contrac-

tors, designers, architects, and kitchen cabinet manufacturers to present a new line of built-in gas cooking units. He was formerly employed by Pittsburgh Plate Glass Company.

● **Caloric Stove Corporation**—George Miller has been named advertising manager. Mr. Miller, who supervises production of the *Caloric Chronicle*, a daily newspaper issued at annual conventions of A.G.A. and Southern Gas Association, has served five years as advertising account executive for Caloric.

● **Stewart-Warner Corporation**—Ray F. DeVaney has been named sales manager of domestic heating equipment of the South Wind Division. Mr. DeVaney has been in Stewart-Warner's South Wind Division for eight years, and has been a factory representative in California and Nevada for the past three years. He succeeds H. W. Milner, who resigned on October 31.

● **A. O. Smith Corporation**—Charles Smith has been appointed manager of the Product Service Division, A. O. Smith Corp., Chicago. He succeeds J. W. Spoor, who was named general sales manager of the company's Welding Products Division.

P. H. Fahr, former manager of the Los Angeles Product Service Branch, moves to Chicago as Mr. Smith's assistant. Succeeding Mr. Fahr in Los Angeles is George Carlson, formerly assistant of the Union, N. J., branch.

Engineers advance at Rochester

WILLIAM F. DEWEY has been named chief engineer for the Rochester Gas and Electric Corp., to succeed John E. Fredericks, who retired on November 30, 1951.

Mr. Dewey will head the company's engineering department, which is responsible for all general engineering and construction. A graduate of Rensselaer Polytechnic Institute, Mr. Dewey joined Rochester Gas and Electric in 1925 as an engineer and draftsman. After several promotions, he was appointed superintendent of engineering in 1944.

James A. McConnell, who also joined Rochester Gas and Electric in 1925 as an engineer and draftsman, was appointed assistant chief engineer. A graduate of the University of Rochester, he completed an extension course in chemical engineering at the same college in 1938.



William F. Dewey



John E. Fredericks



James A. McConnell



John A. Baker

John A. Baker was named superintendent of construction and general maintenance. He began his service with the company in 1918 as a carpenter.

Mr. Fredericks, who retired after 21 years'

service, supervised some of the company's biggest engineering jobs. A graduate of Cornell University in 1909, Mr. Fredericks will now do special consulting engineering work.

Personal
and
otherwise

Consumers Power Company promotes

JUSTIN R. WHITING, formerly president of Consumers Power Co., Grand Rapids, Mich., has been elected to the newly-created office of chairman of the board and chief executive officer of the company.

Dan E. Karn, formerly first vice-president, was elected president to succeed Mr. Whiting.

Mr. Whiting has been a director of Consumers Power Co. since 1934, and president since 1941. Prior to dissolution of The Commonwealth and Southern Corp. in 1949, Mr. Whiting served that company as president since 1940, succeeding the late Wendell L.

Willkie.

Mr. Karn, active in public utility management since 1915 when he became associated with the Central Illinois Light Co., is a graduate of Purdue University. In 1916 he joined Consumers Power Co., as superintendent of steam heating in Grand Rapids. After successive promotions, he was appointed vice-president and general manager in September 1933. A director since 1933, he was named first vice-president in 1950.

Mr. Whiting is a member of American Gas Association.

Betz and McKee promoted by Pittsburgh utility

J. N. BETZ has been named director of information for The Manufacturers Light and Heat Co. and associated Pittsburgh Group companies in the Columbia Gas System. James G. McKee will succeed Mr. Betz as assistant sales manager in charge of industrial sales.

Before serving as assistant sales manager, Mr. Betz had been district sales supervisor for Cumberland and Allegheny Gas Co., an associated company. Prior to that he was in charge of industrial gas sales and later district

sales supervisor for another associated company, The Keystone Gas Co., Inc., Olean, New York.

Mr. McKee has served at the Cumberland and Allegheny Gas Co., Cumberland, Md., as industrial engineer for more than a year. He joined the industrial engineering staff of Manufacturers Light and Heat in 1949. A graduate of industrial engineering from Geneva College, Beaver Falls, he received oil and gas industry training at the University of Tulsa in Oklahoma.



J. N. Betz



James G. McKee

Engineers honor Fieldner for achievement

THE WASHINGTON SOCIETY of Engineers has presented an honor award to Dr. Arno C. Fieldner, chief fuels technologist of the Bureau of Mines. Dr. Fieldner, internationally known inventor, has developed many techniques for testing and analyzing coal, coke and gas. The award, granted in recognition of outstanding professional achievement, has been in existence for many years, but has been presented only four times before this.

Dr. Fieldner has had a career of more than 40 years with the Bureau of Mines. He received his degree from Ohio State University, Columbus, and then launched his career in scientific fuel research in 1907, when he joined the Technologic Branch of the Geological Survey as a chemist. In 1910, when

the Bureau of Mines was created, Dr. Fieldner became a member of the fuel chemistry laboratory, and was later placed in charge of the work. Successive promotions brought him to Washington, and in 1942 he was named head of the Fuels and Explosives Branch, the position he occupied until he was named chief fuels technologist last year.

Dr. Fieldner is a member of American Gas Association.



A. C. Fieldner

Californian promoted

C. P. de JONGE has been appointed general superintendent of the San Diego Gas & Electric Company. He succeeds H. A. Noble, who was recently promoted to the post of vice-president in charge of operation. Mr. de Jonge will have direct supervision of electric production, transmission and distribution as well as gas, transportation, and maintenance of buildings and grounds.

Mr. de Jonge, a graduate of the University of California, joined the San Diego utility in 1930 as an inspector in the gas department. He became a supervisor in 1937, distribution engineer in 1941, superintendent of the gas department in 1944.

Mr. de Jonge is a member of American Gas Association.

Peck made vice-president of service corporation

IRVING K. PECK, vice-president and general manager of The Manufacturers Light and Heat Co. and associated Pittsburgh Group companies of the Columbia Gas System, Inc., has been named a vice-president of Columbia Gas System Service Corporation. John C. Peterson will succeed Mr. Peck as vice-president and general manager of The Manufacturers Light and Heat Company.

Mr. Peck will have the newly-created responsibility for procuring natural gas from the southwest for the Columbia Gas System. He will deal with the larger natural gas producers and major transcontinental pipeline companies.

In announcing Mr. Peck's appointment, S. M. Crocker, chairman of the board of Columbia Gas System and its service organization, said that in the last six years, Columbia's annual natural gas requirements from the southwest have increased from 50 billion cubic feet to more than 330 billion cubic feet. Mr. Crocker said the demand for natural gas from the southwest will continue to mount.

Mr. Peck studied geology at the University of Illinois, and in 1921 was graduated in chemical engineering from the Massachusetts

Institute of Technology. During the following 15 years he served successively as an operating engineer for The Peoples Gas Light and Coke Co., Chicago; as manager of gas and water property operations for the Midland United Co., Chicago; and later as assistant vice-president of the Boston Consolidated Gas Company.

In 1936 Mr. Peck became president and general manager of the New York Group of the Columbia Gas System. He came to Pittsburgh in 1946 as vice-president, general manager and a director of the Columbia gas companies in the Pittsburgh Group.

A past-chairman of the Operating Section of the American Gas Association, Mr. Peck is presently chairman of the A. G. A. General Promotional Planning Committee. In this capacity, he is responsible for guiding the committee's job of allocating its large working funds for the important national program of publicity and education for promotion of the gas industry.

Mr. Peck is a licensed professional engineer, State of New York, and is a member of A. G. A., the Society of Gas Lighting, Engineers' Society of Western Pennsylvania, and



Irving K. Peck

Pennsylvania Natural Gas Men's Association.

Mr. Peterson, who succeeds Mr. Peck in Pittsburgh, will also be vice-president and general manager of the Pittsburgh group gas companies associated with the local firm in the Columbia Gas System.

Mr. Peterson has been vice-president, secretary and general

counsel of the Pittsburgh group companies since 1948. He joined the Manufacturers Light and Heat in 1930, was assigned to the legal department in 1938, and became assistant secretary in 1940. He advanced to secretary in 1946.

Mr. Peterson studied mechanical engineering at Carnegie Institute of Technology, received a B.S. degree in commerce and finance at the University of Pittsburgh, and was graduated from the Yale University Law School in 1929.

Named Ruud president

ALAN B. CAMERON was elected president of Ruud Manufacturing Co., Pittsburgh. He had been vice-president and general manager since joining Ruud in December 1947.

An active member of American Gas Association, Mr. Cameron is on the Residential Gas Section's Committee on Housing.

John H. Sorg was re-elected vice-president and counsel, while K. M. Clark was elected executive vice-president. Also elected a vice-president was Halvard Lintvedt, manager of the Kalamazoo plant. W. M. Latta was elected secretary and treasurer, and W. C. McFarland was named to succeed Mr. Latta as auditor.

Howley retires

JAMES F. HOWLEY, manager of The Brooklyn Union Gas Co.'s dealer relations section, has retired after 44 years of service with the company.

Mr. Howley joined Brooklyn Union in 1907 to begin a colorful sales career during which he sold the first gas refrigerator in the New York City area. He has been manager of the dealer relations section since its inauguration in 1929.

Mr. Howley is a member of American Gas Association, and last year served on the A. G. A. Residential Gas Section's Dealer Relations Committee.

Coast utility promotes

WALTER DREYER has been appointed vice-president and chief engineer, and K. C. Christensen has been named treasurer of Pacific Gas and Electric Co., San Francisco.

Mr. Dreyer succeeds I. C. Steele, vice-president and chief engineer, who served the company for 42 years. Mr. Christensen takes the place of E. J. Beckett, treasurer, who completed 36 years' service with the company.

Mr. Dreyer is a graduate of the University of California, and has been with the company almost 36 years. Mr. Christensen, a member of American Gas Association, joined Pacific Gas and Electric shortly after his graduation from Stanford University in 1931.

Barbehenn completes Gas Practices course

EDWIN W. BARBEHENN, JR. is the first student to complete both Part I and Part II of the American Gas Practice Course, conducted by Professor Jerome J. Morgan under American Gas Association auspices.

Mr. Barbehenn, who completed the course with distinction, is a cadet engineer with the Public Service Electric and Gas Co., Newark.

He studied at Yale University and was graduated from Rensselaer Polytechnic Institute in 1948.

In the past two years, 60 men have been enrolled. The course is in two parts, the first covering manufactured gas, while the second part deals with transmission, distribution, utilization and other gas company operations.

Eckes elected chairman

HAROLD E. ECKES has been elected 1952 chairman of Region 3, Public Utilities Advertising Association, at the region's meeting November 30 in Dayton, Ohio.

Mr. Eckes is director of advertising and publicity of The East Ohio Gas Co., Cleveland. Also a member of A. G. A., he is active on its Publicity and Advertising Committee.

Personnel men elect Shepherd Midwest Conference chairman

H. R. SHEPHERD, director of industrial relations, Cities Service Gas Co., Wichita, has been elected chairman of the A.G.A. Midwest Personnel Conference. He was chosen at a recent meeting in Kansas City, Missouri. Other officers elected for the coming Association year were: D. A. Hardesty, personnel director, Natural Gas Pipeline Co. of America, Chicago, vice-chairman; and A. W. Peel, personnel director, Kansas-Nebraska Natural Gas Co., Hastings, Nebr., secretary.

Mr. Shepherd has been closely associated with industrial relations work for many years.

He joined Phillips Petroleum Co. after being graduated from business college in Fort Smith, Ark., and remained with that company for 10 years. From 1944 to 1947 he served as representative of the International Union of Operating Engineers, American Federation of Labor. He joined Cities Service Gas Co. at Oklahoma City on August 1947, and became assistant to the president. When the company's operation headquarters were established at Wichita, Mr. Shepherd was appointed director of industrial relations.

Wage Stabilization Board regulations were

discussed at the Kansas City meeting. At the afternoon session a survey was made of wage schedules and employment conditions, followed by a round-table discussion. The next meeting will be held in Tulsa, Oklahoma, at a date to be announced later.



H. R. Shepherd

Brooklyn Union promotes high level executives

FIVE EXECUTIVE promotions have been announced at The Brooklyn Union Gas Co., New York. William B. Hewson, assistant vice-president, has been named vice-president. James J. Deely, manager of new business, Gordon Griswold, manager of economic research, and Robb Quinby, manager of rate department, have all been elected assistant vice-presidents. Henry A. Diekmann has been named manager of the new business department.

Mr. Hewson joined Brooklyn Union in 1933 as a cadet engineer after his graduation from Princeton University. He then served in the treasury and new business departments, and in 1945 was named manager of publicity and advertising. In 1948 he was elected assistant vice-president. Mr. Hewson is immediate past-president and director of Public Utilities Advertising Association. He is also a past director of the Advertising Federation of America. A member of A. G. A., he is currently serving on its National Advertising Committee.

James J. Deely began his career as a salesman in the new business department in 1930, following graduation from Notre Dame University. He gained successive promotions until he was advanced to manager of the new business



William B. Hewson



James J. Deely



Gordon Griswold



Robb Quinby



Henry A. Diekmann

department in 1945. Mr. Deely has taken an active part both as a member and as chairman of many A. G. A. committees.

Gordon Griswold joined Brooklyn Union in 1933 as a cadet engineer. Subsequently, he served in the treasury and new business departments. In 1939 he was transferred to the rate bureau as assistant to Mr. Quinby, and in 1946 was chosen as manager of the newly-formed economic research department. He is one of 12 industry experts recently named by the PAD to advise and assist in the forecasting of gas supply and requirements.

Mr. Griswold serves on the A. G. A. Economics Committee. He is also a member of New York Society of Security Analysts. Mr. Griswold is a graduate of the Wharton School of Finance and Commerce, U. of P.

Mr. Quinby has served Brooklyn Union since 1931, when he joined the new business

department as a utilization assistant. After several promotions, he was named manager of the then new rate department in 1946.

A graduate of Beloit College and Cornell University, Mr. Quinby was an air combat intelligence officer during World War II. He is a member of A. G. A., active on several committees and served as chairman of the Association's Rate Committee in 1949 and 1950.

Mr. Diekmann joined the company in 1934 as a cadet engineer, following his graduation from Stevens Institute of Technology. After several promotions, he was called to active duty in the U. S. Naval Reserve. When he returned in 1946, he was named supervisor of the house heating group. In 1948 he was made assistant manager of the department.

Mr. Diekmann has taken an active part in A. G. A. House Heating and Refrigeration Committee work.

Gibbons succeeds Howley

MARTIN GIBBONS has been appointed manager of dealer relations for The Brooklyn Union Gas Company. He succeeds James Howley, who retired recently.

Mr. Gibbons, who has been with Brooklyn Union for 18 years, has served the company as salesman, employee relations supervisor, kitchen program supervisor and district sales manager. In his new assignment, Mr. Gibbons will direct Brooklyn-Union's relations with about 1,200 plumbers in Brooklyn and Queens.

He is a member of American Gas Association.

PAD Gas Advisory Council

NORMAN R. SUTHERLAND, vice-president of Pacific Gas & Electric Co., San Francisco, J. E. Heyke, Jr., vice-president of The Brooklyn Union Gas Co., and N. W. Freeman, vice-president of Tennessee Gas Transmission Co., Houston, have been named to the Gas Advisory Council, Petroleum Administration for Defense. The appointments, which are for 1952, were announced by Secretary of the Interior Oscar L. Chapman. The Gas Advisory Council, a part of the National Petroleum Council, is composed of 64 gas industry leaders.



N. R. Sutherland



J. E. Heyke, Jr.

LP-gas men named to national committee

LEE A. BRAND, vice-president of the Empire Stove Co., Belleville, Ill., recently re-elected chairman of the National Committee for LP-Gas Promotion, has announced a number of important appointments for the coming year.

A. H. Cote, director of sales and operations, Suburban Propane Gas Corp., Whip-

pany, N. J., has been named to the National Committee by the Liquefied Petroleum Gas Association, one of the four trade associations sponsoring the National LP-Gas Promotional Program. He succeeds Mark Anton, president of Suburban, who has served with the group since February, 1950.

Reappointment of E. Carl Sorby, vice-president, Geo. D. Roper Corp., Rockford, Ill., as chairman of the Copy Subcommittee and appointment of M. L. Trotter, president, Carolina Butane Gas Co., South Carolina, as chairman of the Training Subcommittee were announced by Mr. Brand.

Aul to direct Jersey Central safety program

RUSSELL W. AUL, secretary and assistant treasurer of Jersey Central Power & Light Company, Asbury Park, has been appointed director of safety. He succeeds Malcolm S. Dickenson, who resigned recently. Mr. Aul continues as secretary and assistant treasurer.

Mr. Aul began his utility career in 1923, when he joined the Consolidated Gas Com-

pany of Asbury Park. Recently he completed 25 years' service with Jersey Central Power and Light, after serving as secretary to the president, transportation superintendent, and editor of the company house organ. He was elected assistant secretary in 1931 and secretary in 1943. Two years later he was named assistant treasurer.

Appointed vice-president

EROWLAND ENGLISH has joined Pipe Protection Service, Inc., Elizabeth, New Jersey. Mr. English will serve as vice-president and assistant general manager in charge of sales. He was formerly eastern division manager for Somastic Division, H. C. Price Company, and is a member of the National Association of Corrosion Engineers.

Connecticut utility advances five

P**PROMOTION** of five Connecticut Light and Power Company executives to fill vacancies created by organization of a new employee relations department will become effective February 1. The new department has been planned to improve company efficiency by consolidating all employee relations activities now being carried on in several other departments. The new department will be located with other staff offices in the company's nearly completed Berlin headquarters building. Central Division Manager A. S. Jourdan has been named to head the new department. Eastern Division Manager G. J. Williams succeeds Mr. Jourdan as central division manager; Greenwich District Manager A. M. Wade is named eastern division manager; Naugatuck District Manager R. I. Coleman becomes manager of the Greenwich district, and R. S. Newhall, street lighting engineer

for the company, succeeds Mr. Coleman as Naugatuck manager.

Mr. Jourdan, who completed 40 years of service in 1950, joined the power company in 1910 in Branford, where he became manager in 1912. In 1918 he was named manager in Waterbury and was appointed New Britain manager in 1921. In 1925 Mr. Jourdan was appointed assistant to the vice-president in Waterbury. In 1929 he became Meriden manager and was made central division manager in 1939.

Mr. Williams, who will succeed Mr. Jourdan, joined the company in 1920. After varied experience as an engineer in the company's Waterbury, Greenwich and Meriden districts, Mr. Williams was made manager of the New Milford district in 1929. In 1937 he became division engineer for the Company's eastern division and was appointed eastern division manager in 1946.

Mr. Wade, the new eastern division manager, joined the company's advertising department in 1924. In 1928 he accepted a position with General Motors and in the next year was appointed assistant sales manager for the firm in India. In 1932 he rejoined Connecticut Light & Power Company's advertising department and in 1941 became manager of the Rockville district. Mr. Wade was appointed Greenwich district manager in 1944.

R. I. Coleman, who will become the Greenwich district manager, came to the utility in Waterbury as an engineer in 1927. In 1945, after four years in the navy, he returned to CL&P as assistant to the western division manager. In 1946 he was named manager of the Litchfield district and in 1948 Naugatuck district manager.

Mr. Newhall, who will succeed Mr. Coleman as Naugatuck district manager, joined CL&P's sales department in 1946.

Ebasco Services appoint Fitch a consultant

J**OH****N D. FITCH** has joined Ebasco Services Incorporated's consulting engineering department. For the past nine years, Mr. Fitch has been with the Export Import Bank, Washington, D. C. as principal engineer and chief of the engineering division.

Following graduation from Massachusetts Institute of Technology in 1924 until his association with the Export Import Bank, he

was employed as hydraulic engineer by Minnesota Power & Light Co., Charles T. Main, Inc., Charles B. Hawley Engineering Corp., and the Federal Power Commission. His work with the FPC included comprehensive analyses of water power and gas resources of the United States and service on the National Defense Power staff in connection with providing adequate power for wartime defense.

Webb named vice-president

H**C. WEBB**, general sales manager for the Oklahoma Natural Gas Co. has been elected to the position of vice-president. Mr. Webb started his public utility career with the street railway system in Houston, Texas in 1918. Since then he has had 35 years' experience in El Paso, Texas; Baton Rouge and Lake Charles, La.; Virginia and Seattle, Washington.



Philip D. Fowler

a pioneer in the development of the automatic gas water heater and vice-president of the Lovekin Water Heater Co., died on December 15 at his home in Philadelphia. He was 65 years old.

John M. McMillin

a vice-president and director of Cities Service Co., died in New York at the age of 68, after a long illness.

A graduate of Massachusetts Institute of Technology in 1907, Mr. McMillin began his career as a mining engineer in Colorado and Mexico. In 1908, he joined the Denver Gas and Electric Company.

Mr. McMillin went to the New York offices of Cities Service in 1910 as sales manager of the subsidiary Improved Appliance Co., and in 1914 became associated with the bond department of Henry L. Doherty and Company.

From 1920 to 1946, Mr. McMillin directed the issue and sale of nearly all Cities Service Co. securities, and negotiated principal bank credits. He became a vice-president in 1940, after having been a director since 1922.

Mr. McMillin also served as a director and

executive committee member of Empire Gas and Fuel Co.; a director of Cities Service Refining Corp.; Cities Service Oil Co., Ltd.; Cities Service Oil Co. of Pennsylvania; Arkansas Natural Gas Co.; and Arkansas Louisiana Gas Company.

Surviving are his widow, Mrs. Enid M. Shaw McMillin, two sons and a brother.

Thomas Carter

retired vice-president and a director of the Cities Service Co., died at his home in White Plains, N. Y., December 18.

Before his retirement in 1950, Mr. Carter had been an executive or director of 20 companies, most of them public utilities. He had been with Cities Service and its predecessor companies since 1907.

Mr. Carter was a vice-president and director of the Brantford Gas Co., the Danbury and Bethel Gas and Electric Light Co., the Deerfield Electric Service Co., the Doherty Unit Oil Pool Operating Co. and the Lake Shore Power Company.

He was also a vice-president and director of the Durham Public Service Co., the Empire District Electric Co., the Empire Gas and Fuel Co., the Lenawee County Light and Power Co. and the Pueblo Gas and Fuel Company.

Mr. Carter was president and a director of the New York Central Gas Co. and the Watauga Power Company. He was a director of the Deep Well Water Co., Empire Refineries, Inc., the Grand River Valley Rail Road Co.,

the Mexico-Eastern Oil Co. and the Southern Timber Securities Corporation.

Surviving are his wife, Mrs. Elizabeth Finn Carter; a daughter, Mrs. Archie Bunting, and five sisters.

James M. Brown

manager of the Cleveland district industrial sales office, Surface Combustion Corp., died on December 3, 1951, at the age of fifty.

Mr. Brown was born in Pittsburgh and was a graduate of Carnegie Tech. He had been associated with Surface Combustion Corp. since 1927.

Mahlon B. Taylor

assistant treasurer of the Philadelphia Gas Works Co., since 1941, died on December 17 at the Jewish Hospital in Philadelphia. Mr. Taylor, who was 66 years old, is survived by his widow, Mrs. Kathryn Taylor and a son Mahlon.

Mr. Taylor was a member of the American Gas Association.

Alfred P. Brill

former Ruud Manufacturing Co. executive and pioneer gas water heater executive, died in Pittsburgh on December 11, 1951 at the age of 71.

An early associate of inventor Edwin Ruud, Mr. Brill joined the Ruud company in 1902. He succeeded Mr. Ruud as president in 1932, became board chairman in 1944 and retired in 1945.

Industrial relations

(Continued from page 31)

prices of items bought by moderate income workers have risen only 8.5 percent. This percentage pay rise is equivalent to six to eight dollars a week for some occupations.

The survey, which covered 650 concerns in the five boroughs employing a total of 565,000 employees, came up with the news that New Yorkers receive higher pay for office work than workers in Atlanta, Boston or Chicago.

One of the surprising findings was that office workers in private concerns generally receive higher pay than do government employees in similar classifications. This, of course, does not take into account the extensive vacation and sick leave allowances the government jobs include.

● **Swedish vacations based on age and pay**—In Sweden, the number of days of vacation received by a white collar worker under his union contract is determined by his age and salary and not by length of service, as in the United States. When asked why, a Swedish union official explained: "We believe in Sweden that the greater a person's age, the longer should be his vacation: an older person needs more rest than a younger person. We also feel that the higher a worker's salary, the greater his responsibility. Therefore, he has greater need for the additional rest a longer vacation gives him."

● **Supervisor's pay**—The Associated Industries of Cleveland recently polled a small group of companies in the area on the differential between the foreman's pay and that of the highest paid worker under him. Some of the results: company A, 15 percent; company B, 12 percent; company C, 5 to 25 percent with the average around 15 percent; company D, 10 to 25 percent; company E, 20 to 25 percent.

Of 60 companies surveyed by the Commerce and Industry Association of New York, 31 had definite policies providing extra compensation for supervisors when their departments are scheduled to work overtime. Fourteen of these pay straight time, time and a half, or double time. Nine pay extra compensation on a tapering-off schedule according to salary level, number of overtime hours, or both.

● **Disaster control**—A new 16mm sound motion picture entitled *Disaster Control* will soon be released by McGraw-Hill. It will give a blueprint for the formation of a functioning disaster control organization. Based on the article published in *American Machinist*, this 21-minute film will show how to save lives, speed plant recovery, and insure continued production.

The plan for a disaster control program contained in this film can be adapted to the individual needs of any plant operation. It stresses self-help—important when outside agencies will be overwhelmed with calls for assistance in case of disaster.

It recommends a careful study of your personnel resources. Seek out those with previous experience in meeting emergencies, e.g. former service men and women and Red Cross volunteers and place them in positions where their knowledge will help plant protection and personnel safety. It indicates the setup

and duties of plant defense coordinator, fire fighting units, police or security department, sanitation control group, salvage unit, air raid warden service, and communications units.

This film offers pointers on procedures to be followed to combat shock wave, heat flash, and nuclear radiation. All the techniques illustrated in this film are aimed at securing one result above all others: the restoration of vital production flow to as close to normal level as possible. This is the primary aim of your disaster control unit. It can well be achieved by following the broad setup indicated in this film. The details of organization and operation will follow, depending on your own peculiar operation.

More information on this film can be gotten from McGraw-Hill Book Company, Inc., Text-Film Department, 330 West 42 Street, New York 18. The film will sell for approximately \$100.00.

● **New fringe item**—Add another fringe item to the long list of "with pay" benefits employees get. This one is a week's leave of absence with pay for employees who get married. The new policy has been set up by Pitney-Bowes, Inc., Stamford, Conn. Here is how it reads: "One week's absence with pay will be allowed an employee who requests time off to be married. Additional time off will be granted if desired, but will be considered a leave of absence without pay unless taken as vacation due."

● **How many major strikes a year?**—A study of strikes in American industry over the past 36 years indicates that we can expect eight to ten strike situations warranting front-page newspaper coverage during a typical peacetime year.

Edgar L. Warren, Director of the Institute of Industrial Relations at the University of California at Los Angeles, made this prophecy in the Fall issue of Cornell's *Industrial and Labor Relations Review*.

In the 36 years from 1914 through 1949, 165 work stoppages made front pages of the *New York Times* and the *Los Angeles Times*, and of these 46 received more than six columns in the *New York Times* and more than two columns in the *Los Angeles Times*.

"During the past 36 years, there have been on the average almost five strike situations a year which brought about nationwide newspaper comment, and in recent years there has been an average of eight to ten such situations a year," Professor Warren said.

Strikes in public utilities, including local transit, tugboat, ferry service, telephone and telegraph service, and power and light, accounted for only two of the 46 major work stoppages. "On the average," Professor Warren said, "only a little more than one serious, or possibly serious, strike a year has occurred in any industry vested with a public interest."

On the basis of this historical experience, Professor Warren said, "We might expect from eight to ten 'alarming' situations a year. . . . At the end of the year, however, of nine or so potentially critical strikes there would be found to be one or two, but certainly not more than three, which were not settled promptly and which continued to provide important news for a week or longer.

"While there has been much discussion of strikes which imperil 'the national health or safety' there have been few such instances in history. Vital services have never been completely curtailed because of strike activity."

● **Key to defense production in foreman's hands**—*The Iron Age* by Fred Rudge (100 East 42nd Street, New York, N. Y.), August 23, 1951, emphasizes the importance of strengthening the foreman's identification with management—especially at the present time when the strains of emergency production are mounting. He concludes with some recommendations for giving foremen the help, the authority, and the prestige they will need to meet the stepped-up schedules and other special problems of defense production.

● **Employment status of women by age group**—One-half of all women 18 to 24 years of age are in the labor force, according to the figures for July, 1951, from the U. S. Department of Commerce, Bureau of the Census. Only slightly over a third of the women from 35 to 54 are in the labor force.

● **Let workers tell story**—Employees find employee-delivered messages more believable than those delivered from "on high," according to Hawaiian Pineapple Company. It also reports that it has heard only good comments from employees on its information-on-annual-report-program. And it feels it's significant that there have been no major strikes since the program started.

As further evidence of its satisfaction with the program, this firm is now beginning to use the method to tell about other things than the annual report. For example, employees are now telling their fellows about paid sick leave, vacations, and all the other security benefits that they are getting from the company and the government.

The company's personnel department starts the ball rolling by picking 20 or so likely speakers from among the 5,000 workers. They are chosen because (1) they like to talk; (2) they are reasonably representative of the group with whom they work; (3) they are bright enough to handle the job. For about a month the speakers get intensive training to make sure they understand and believe it (the speech) thoroughly. Questions are invited and urged.

● **Increase in union shop and check-off clauses**—The Bureau of Labor Statistics reports the continued growth of union shop clauses and dropping off of maintenance-of-membership provisions in collective contracts negotiated in the past year. The union shop is called for under 61 percent of present collective agreements as against 50 percent a year ago, and maintenance-of-membership clauses appear in 13 percent of such contracts as against 21 percent the year before. Union shop clauses are found most frequently in the following industries: apparel, construction, paper, printing, rubber, transportation and transportation equipment, and trade and the services. Maintenance-of-membership clauses predominate in primary metals. Union security provisions are least often found in the communications, electrical machinery, petroleum products, and tobacco industries. Check-off provisions, the BLS found, have

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Gas industry at new high

(Continued from page 8)

utilities serving military bases of all kinds.

Results of studies on comparative uses of gas and electricity and meat shrinkage were published and proved very beneficial to the gas industry. Work done with the American Automobile Association resulted in certain limitations on the use of the AAA approval symbol by gas heated hotels, motels, cabins and tourist homes; permission to use the symbol will be granted only where approved fully vented gas heaters are used. The bureau also cooperated in the Automatic Range Ignition Field Testing Program. Considerable work also has been done on building codes and other ordinances, helping more than twenty-five local gas companies with problems of this nature.

The bureau also has been able to assist gas utilities in obtaining a fair basis for evaluation of merits and costs of gas service in several localities where highly competitive situations existed.

Statistics Bureau

The Bureau of Statistics again prepared and issued an edition of *Gas Facts*, the statistical yearbook of the industry. The 1950 edition included for the first time the composite financial statements for the entire gas industry and key statistics for Canadian gas utilities. The bureau participated in a regional conference with the New England Gas Association which was devoted to some of the economic aspects involved in conversion to natural gas. It also took active part in a conference on the economics of gas house heating held in Chicago in November. A long range project to analyze the many aspects relating to the economics of gas house heating has been initiated and the bureau will do much of the detail work under this project.

The director of the bureau has been appointed one of the consultants to the Gas Division of the Petroleum Administration for Defense. Through this means the bureau will be able to render further assistance to the Gas Division of PAD. The bureau also made a special study on consumer acceptance of major gas appliances in newly constructed dwelling units, that proved most favorable for the industry.

Washington office

With the enactment of the Defense Act of 1950, the executive board authorized the re-establishment of a Washington office as a source of information and advice on matters pertaining to defense and the regular agencies of government. The office functions to help the members of the industry in their material procurement problems and keeps the industry informed of the defense orders and regulations affecting it. Such orders are interpreted informally for the benefit of Association members. The Washington office also informs various industrial sections of the National Production Authority of the needs for materials by the gas utilities for appliance installation and inside piping.

In time of war or national defense, the gas utility will be high on the list of essential industries. Manpower shortage could severely handicap operation of gas utility systems. The A.G.A. Personnel Committee made a thorough study of this situation last year and has prepared data that could be used

in securing relief and in determining essential activities within the gas industry.

The A.G.A. Rate Committee completed a study of trends in rate changes during 1950 that indicates more rate reductions were put into effect during the year than rate increases. It was pointed out, however, that this trend was largely influenced by the numerous conversions from manufactured or mixed gas distribution to straight natural gas, which frequently results in an initial savings for customers. Increased costs of producing and marketing gas may reverse this trend.

Public information Bureau

During the past year the Publicity Bureau and the Publications Bureau were combined to form a Bureau of Public Information which functions in both fields. Much favorable publicity was obtained in women's and national business magazines as well as in newspapers and the trade press. Financial bulletins highlighting gas industry progress, in addition to regular statistical information, were furnished to more than six hundred financial institutions, stock exchange firms, banks, and other interested organizations. The bureau furnished material and stories for articles in important publications such as *Business Week*, *Scientific American*, *National Geographic Magazine*, *Collier's Year Book*, *Reader's Digest*, and others. Special stories were syndicated by wire services, and many leading newspapers regularly use charts and pictures pertaining to gas industry facts furnished by the bureau. Convention publicity this year was gratifying.

The A.G.A. MONTHLY was again awarded the highest citation of the International Council of Editors for outstanding editorial content and appearance. The A.G.A. Annual Report merited much favorable comment and the bureau was able to give assistance to sections and other bureaus in the production of printed material.

Conclusion

The gas industry had to overcome many obstacles to achieve the splendid record it made in 1951. All of the elements are present for a continuation of the industry's advances in 1952. Consumer demand still exceeds the ability of gas utilities to serve such needs in some areas; the industry has allocated more than \$1.25 billion for an expansion program for next year; the defense production curve is rising, creating further demands for industrial utilization of gas; and some 800 thousand new homes are predicted for next year.

Balanced against these factors are the uncertainties that underlie the national economic picture. Defense production requirements already have curtailed supplies of steel pipe and other materials needed for the industry's construction and expansion program. Rising costs will necessitate upward adjustments of rates in some areas. The imposition of further federal and state controls and taxes may curtail exploration for new fields and retard the increase of natural gas reserves.

Despite these matters which are mostly beyond control of the gas industry, the outlook for 1952 appears most favorable. Our industry is ready to do more than its share in making the world a better place to live in. It also is ready to make every contribution possible to maintaining and raising the living standards of our own nation, through the efficiency and economy of its service.

Pattern for sales

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The award provides \$1,000 in three cash prizes to the gas utility companies making the greatest contribution to the advancement of gas summer air conditioning under the rules and regulations of the contest.

● **April, May and June 1952—Gas Incineration Campaign**—The 1952 program will consist of a gas incineration section in the second-quarter campaign portfolio, which will also include house heating and air conditioning. Directed to gas company sales executives, the section will call attention to the value of the load and the fact that gas incineration provides a new major use of gas in the home as a prestige builder.

The Gas Incinerator Sales Maker and the consumer booklet entitled, "10 Short Cuts to Quick Clean-Ups with an Automatic Gas Incinerator," will again be offered to gas companies for local use, in addition to case histories of past successful campaigns.

● **June, July and August 1952—Gas Refrigeration Campaign**—The organization meeting of the Gas Refrigeration Committee will be held early in 1952. This committee has as its objective the increased sale of gas refrigeration. Under the section's approved program of "long-range planning," gas refrigeration advertising has been scheduled by A.G.A. to appear in the consumer magazines during the period of the campaign.

Activities during 1952 will be patterned after 1951, through the preparation of a brochure, tie-in sales, promotional, advertising and publicity items, and consumer premiums. "The Gas Refrigeration Sales Maker" and the consumer booklet entitled, "10 Reasons why You're 20 Years Ahead of the Times With a New Gas Refrigerator," will be included in the 1952 materials. It is expected that some type of a sales campaign for gas company salesmen, distributors and dealers will again be undertaken during the coming year in cooperation with Servel.

● **Dealer Relations**—The Dealer Relations program, during 1952, will encourage utilities to increase the effectiveness of their load-building efforts by building a strong dealer merchandising organization, and to provide utilities with a definite plan, with accompanying materials, for recruiting and

training a dealer merchandising organization.

The 1952 program visualizes the preparation of a kit or portfolio specifically designed to create utility-dealer interest in aggressive gas appliance salesmanship. A number of successful case histories, sales training and promotional ideas are slated as a part of this hard-hitting program. Under the plan, intensive product training will be launched as a joint project by gas appliance manufacturers and utilities, in which specific brands, products and techniques will be discussed.

Also being considered as part of the committee's program is the organization of "Blue Flame" dealers by gas companies at the local level. To qualify for a "Blue Flame" designation, the dealer will be requested to agree to display the emblem in his windows, carry a representative stock of gas appliances, adequately display appliances, and attend gas company sponsored meetings. Utilities will be also required to agree to assist dealers in obtaining financing plans, to participate in cooperative advertising and to assist in working out satisfactory installation and service techniques.

An integral part of the program will be the availability of an A.G.A. dealer consultant who will be at the service of local gas utility companies, to work with them in organizing local dealer programs together with the necessary materials, which will be provided by the committee, to put them in effect.

● **Committee on Housing**—The committee will prepare a portfolio along the lines of A.G.A. campaign portfolios including information and data stressing the importance of the new-home market, and ways and means of selling it. This portfolio will also include case histories of local plans, successfully used by gas companies in selling the architect and builder on the merits and advantages of modern gas service. The committee will also prepare a colored booklet along the lines of the very successful "Big Ten" series, devoted to the application of gas to the new-home market, which will be available to gas companies for distribution to builders.

● **Home Service Committee**—Included in the activities of the Home Service Committee will be a broiler study, based on the results of a questionnaire sent to representative home service directors, to determine instruction methods now in

use. This study is being undertaken to attain uniformity in instruction to customers on the subject of broiling.

The committee also plans to prepare instruction sheets on how Home Service can use the gas water heater and gas clothes dryer sales training booklets, as well as the consumer booklets entitled "You'll Be in Clover 10 Times Over With a New Automatic Clothes Dryer" and "Answers to the 10 Biggest Questions on Water Heating."

Future plans consist of the development of safety programs in the home, and review of the present booklet "On The Job Training for Home Service." Representatives of home service have been invited to serve on all of the major appliance committees of the Residential Gas Section for the coming year. The annual Home Service Workshop will be held in Chicago at the Drake Hotel, January 21-23. This meeting is always very well attended by home service representatives from all parts of the country and by an ever-increasing number of gas company sales executives.

● **Committee on Improving Domestic Gas Appliances**—A meeting of the committee will be held early in the year for the purpose of reviewing the status of the committee's 10-point recommendations which are now being studied by the "CP" range division of GAMA.

This committee will continue its efforts constantly to review and study the "CP" gas range requirements, and to recommend upgrading.

● **New Freedom Gas Kitchen Committee**—The committee will continue the production and distribution of the diversified New Freedom Gas Kitchen sales and promotional materials for use by gas companies. Included in this material will be the publication of a kitchen booklet along the lines of the very successful publication, "Modern Designs For Kitchens & Laundries."

Cognizant of the far reaching effects of publicity, the committee and the New Freedom Gas Kitchen Bureau will again work with representatives of the women's shelter and home magazines, to attain publication of New Freedom Gas Kitchen stories and photographs. Specific attention will again be given to stimulating participation by the gas industry in national home shows and other exhibits. An example of the progress being made is the gas industry's participation in next year's Home Builders' Conven-

tion. Eighteen spaces have been reserved for gas appliance displays which will consist of four New Freedom kitchens and laundries, and 14 individual appliance displays by GAMA including ranges, refrigerators, water heaters and gas clothes dryers.

● **Window and Store Display Committee**—It has long been recognized that well designed, attractive and attention getting displays are important tools in the promotion and sale of modern gas appliances. During 1952, the committee will make available information concerning displays, construction costs, color

segments and other data, successfully used by other companies to promote gas appliance sales.

The two semi-annual issues of the *Window & Store Display Bulletin* will again be synchronized with the A.G.A. gas range promotional campaign in the spring, and in the fall.

● **Regional Conferences**—During the past years, the three regional conferences sponsored by the section, have been well attended by gas company sales executives and by representatives of the domestic gas appliance manufacturers. These conferences will be continued during 1952,

and consist of: 1) Eastern Natural Gas Regional Sales Conference, William Penn Hotel, Pittsburgh, April 7-8; 2) Midwest Regional Gas Sales Conference, Edgewater Beach Hotel, Chicago, April 21-22-23; and 3) New York-New Jersey Regional Gas Sales Conference, which will be held during the month of June.

● **Summary**—The year 1952 will present many complex problems, the solution of which will tax ability and ingenuity. In the last analysis, our Pattern for Sales can succeed only with the wholehearted support and cooperation of all segments of the industry.

To calibrate bottles on "to deliver" basis

One-tenth cubic foot bottles and one cubic foot bottles are now being calibrated by the National Bureau of Standards on the basis of "to deliver."

This change from calibration on the basis of "to contain" became effective

January 1, 1952. It resulted from discussions at the meeting of Subcommittee 2 on the Measurement of Gaseous Samples, American Society for Testing Materials Committee D-3 on Gaseous Fuels, St. Louis, October 16, 1951.

At this meeting it was brought out that in use the interiors of one-tenth cubic foot bottles are always wet. In other words, they are used in a condition of "to deliver." As a result it was recommended that they be calibrated accordingly.

Look for scrap—needed for defense

THE SHORTAGE OF IRON and steel scrap, necessary in the production of steel, is growing more acute each day. Defense Production Administrator Fleischmann recently predicted that if the joint efforts of private industry and government agencies are not sufficient to keep scrap moving, the government will have to take on the job.

Each utility can do a great deal to salvage vital scrap. The Steel Industry Scrap Mobiliza-

tion Committee recommends the appointment of a salvage manager by executive order, and the establishment of an inventory of all equipment, machines, parts, dies, fixtures and stores not in immediate use. The committee also recommends a breakdown of the inventory list into three categories—material which can be scrapped, material which must be kept for repairs, maintenance or future operations, materials of questionable need.

The breakdown for each department should be made available to the chief engineer and other executives, and a conference of the salvage manager with executive management, department heads, and chief engineer to review upon all material not scrapped immediately should be held. The committee recommends that the salvage manager report to his association on the amount of tonnage removed.

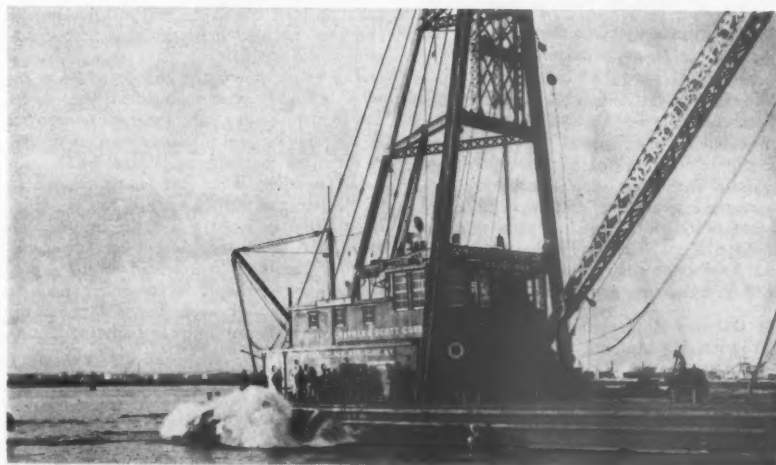
Exchange arranged

HUMBLE OIL and Refining Co. and Southern Production Co., Inc., announced today an agreement for the exchange of natural gas. The agreement, which will run for 20 years, provides a first call for each company on reserves in certain fields owned by the other estimated in each instance to be in excess of 700 billion cubic feet of natural gas.

Humble has agreed to deliver to Southern Production a daily average of 75 million cubic feet of natural gas from its Duck Lake and Lake Sand Fields in St. Martin, St. Mary and Iberia Parishes, La., in exchange for delivery to Humble by Southern Production of a like volume of gas from the Pledger Field in Brazoria and Matagorda Counties, Texas. Purpose of the agreement is to provide an outlet for the gas from the respective leases at locations more convenient to the companies.

Terms of the agreement, which is to be formalized later after certain contingencies are met, call for exchange of gas above ground. A finding by the United States Treasury Department that the exchange provisions of the present agreement are non-taxable is a condition precedent to the agreement becoming effective.

Crossing method used first time in East



Another step in bringing natural gas to Brooklyn, N. Y., is completed as 1,600 feet of 24-inch pipe is laid under the Arthur Kill between New Jersey and Staten Island. In laying pipe, Transcontinental Gas Pipe Line Corp. employed flotation process, never before used in East. Process consists of floating pipe below water surface by pontoons. As pipe comes into position over underwater trench it is lowered by releasing pontoons one at a time. Pipe was laid below river bed and protected with concrete

Depreciation accounting

(Continued from page 22)

invested in the business. It has in many cases resulted in the nondisclosure of either the reserve or the true plant costs in attempts to secure more simplified reports. More seriously, it has resulted in the drawing of unwarranted conclusions as to the amounts of profit and percentages of profits relating to the total assets invested in the business. This misrepresentation has extended to the ordinary investor who interprets the depreciation reserve as a diminution in value, without fully understanding that the figure for plant assets less reserve for depreciation, whether described as "net plant" or shown with no caption, merely represents, if anything, the unallocated or undistributed cost of fixed assets not yet charged to expense.

The proposal for the extension of the practice of deducting depreciation reserves from plant assets is particularly inappropriate at this time when serious criticism is being directed against the accounting convention for stating plant assets at cost. In view of the substantial reduction in the value of the dollar, many accountants realize that the statement of plant assets in terms of monetary units, which are worth, in effect, only half of their former value, may represent a serious defect in current accounting practice. In the face of this dilemma, the implication that such "net plant" bears any semblance or relationship to value, further aggravates the inaccuracies in statements of plant assets.

As inaccurate as the overemphasis on "net plant" balance may be industrially, it is still much worse and really harmful to the regulated industries.

Objections to deducting the depreciation reserve from plant assets in regulated electric and gas utility industries.

As applied to regulated utility industries, the deduction of the depreciation reserve from plant assets is of far greater significance than for non-regulated industries, and the electric and gas industries strenuously object to this proposed provision for the following reasons:

(1) Constitutes a misrepresentation of material facts and an admission against interest

The NARUC Committees would require that the reserve be deducted from plant accounts in reports submitted to regulatory and other public authorities. Financial officers of regulated companies should not be required to assume responsibility for sworn statements or statements which contain a gross misrepresentation of material facts and which will be considered as an admission adverse to the interest of the electric and gas utility industries.

(2) Discards 50-year electric and gas utility accounting convention

The proposal discards, without sound reason, a consistent and continuing accounting convention used in the electric and gas business for the past 50 years. In regulated public utilities, costs of plant and properties represent the largest proportion of the total assets and the single most important factor in determining earning capacity. Because of the high proportion of plant assets to total assets and because of the relatively long life of plant

assets, the accumulated depreciation reserve necessarily amounts to a very substantial figure. To deduct the depreciation reserve from plant assets will lead to the erroneous interpretation that the resulting figure represents the value of utility plant. Depreciation accounting on a cost basis does not, except by chance, produce a value or component of value. The accounting convention for stating plant assets at cost should not be undermined by deducting therefrom amounts which relate only to the expense charges for the ultimate retirement of plant.

(3) Deduction is erroneous because existing reserves are not the result of consistent charges and credits

Different concepts of accounting and rate regulation over the years have produced reserves of various content. Existing depreciation reserves may represent a product of past charges entirely to operating expenses or partly to operating expenses and partly to income deductions; or they may reflect transfers from or to capital or surplus accounts;—or they may include other credits such as accelerated amortization, or tax savings relating thereto, additional depreciation for plant assets constructed on leased premises, gains or losses from sales of land and non-depreciable property, etc. The depreciation reserves may also include charges for depreciation, which were provided for during periods of insufficient return, or may include excessive provisions for depreciation. The figure, therefore, for plant assets less reserves does not reflect an accurate statement of a significant financial fact.

(4) Proposal is an attempt to set up standards for state legislation and commission regulation of rates which would be confiscatory

The electric and gas utilities believe that deducting the reserve for depreciation from plant assets will give wider acceptance to the use of plant "original cost" less depreciation reserve or depreciation reserve requirement as a standard formula for rate making. It is the industries' contention that cost less reserve must not be used indiscriminately for determining the rate base.

The entire amount of the depreciation reserve is almost never invested in plant assets and in many cases a substantial portion of the reserve may be used to supply working capital in excess of that amount allowed in the rate base. To deduct these portions of the reserve would result in serious inequity to the utility. Even if the assets have been so invested, the credit due to the customers' interest, in respect of the funds represented by the depreciation reserve, should be computed at a rate lower than the allowable fair rate of return, since the entire risk must be borne by the investors.

Where full deduction of the reserve is made in the calculation of the rate base, the net effect is that the customer is being permitted to buy back piecemeal part of the property which the utility must continue to operate without compensation. This is not in accord with the real nature of the transaction. Title to the property remains at all times with the utility and does not pass to the customer; what the customer pays for is service, not

property. The utility should be operated for the benefit of customers, investors, and employees. If financial fair play is to be accorded to all three groups, then the utility should not be required to manage property without compensation.

The depreciation reserve may include amounts which were charged against income when the utility was not earning a fair rate of return, and to such extent, the assets represented by the depreciation reserve constitute a source of funds contributed by stockholders rather than by consumers. When the depreciation charges have exceeded the amounts allowed in fixing rates, the portion of the reserve represented by the excess arises from earned surplus. The depreciation reserve may also reflect transfers arising out of capital transactions or credits arising from accelerated amortization, all in no manner related to charges to consumers.

That the deduction of the depreciation reserve from plant assets in accounting reports will have widespread influence on rate base determinations is clearly evident. Practically all state commissions prescribe the NARUC or FPC Uniform Systems of Accounts for electric and gas utilities. This means that throughout the United States practically all utility plant accounts are stated at "original cost." On the other hand, according to a 1948 Federal Power Commission Report, in only eight states is original cost the most important factor in rate-base determinations; and of these only a few at this time unqualifiedly deduct the book reserve or reserve requirement to determine the rate base.

The adoption of plant assets less depreciation reserve as a ready rate base is demonstrably unfair without full consideration of all significant facts. This constitutes the chief reason for the continued insistence for including the depreciation reserve account in the asset section of the balance sheet accounts.

(5) Deduction of reserve will adversely affect investment standing of utilities.

The deduction of reserve for depreciation from plant assets will have an adverse effect on the investment standing of utilities. Investment groups will receive the impression that regulatory bodies have come to agreement to arbitrarily adopt the "net plant" basis for rate determination. Investors will view this arbitrary requirement as limiting earnings within the confines of a rigid formula.

(6) "Depreciation money" is not return of capital to investors

The amounts represented by the depreciation reserve do not constitute capital which has been returned or is returnable to the investors. Utilities are under legal obligation to replace plant assets and to construct plant additions in order to satisfy the service requirements of their customers. The funds represented by the depreciation reserve balance cannot be distributed to investors but must be used for the replacement of plant assets. The depreciation reserve must, therefore, be regarded as an advance payment by consumers (provided an adequate return has been earned) for plant assets, and when the funds represented by such reserve are invested in additional plant assets, the management has

in effect made a borrowing of such funds, pending replacement of existing plant assets.

Depreciation accounting must be viewed not only as an allocation of the cost of plant assets against the income but also as representing a source of funds held until existing plant assets are replaced. While it has been recognized that the most advantageous use of these funds can be obtained by investing in new or additional plant assets, it does not alter the basic fact that the reserve for depreciation, nevertheless, constitutes a source of funds and, as such, represents additional assets invested, instead of reflecting reductions in assets employed.

Objections to the proposed provisions for: (1) changing title of reserve for depreciation account, and (2) retroactive accounting for depreciation.

(1) Change in Title of Reserve for Depreciation to Provision for Accrued Depreciation

Having defined depreciation of utility plant as representing decline in service value or decline in service life and having adopted the theory that depreciation proceeds uniformly on a straight-line basis, the NARUC Committee proposes that the present title for accumulated depreciation be changed from *Reserve for Depreciation* to *Provision for Accrued Depreciation*.

The word "accrued" does not properly indicate that depreciation is a process of allocation of plant assets in a systematic and rational manner. The combination of the two words "accrued depreciation" is even more misleading because it has been used to mean different things. In the accounting sense, it means amounts entered or recorded in the books of account as periodic distributions of cost. In the engineering sense, the term has been used to mean value, which is estimated to have been actually lost. The NARUC Committee on Depreciation has in its 1944 report referred to accrued depreciation as "the amount of service life or capacity deemed to have been exhausted at any particular time as estimated by the consistent application of the age-life basis." In the same report the committee also referred to the "depreciation reserve requirement" and "accrued depreciation" as being essentially the same thing and stated that the depreciation reserve requirement properly computed is the best practical measure of actual depreciation.

The American Institute of Accountants in considering change in the title "Reserve for Depreciation" arrived at no precise conclusion other than to advise that the term "reserve" be replaced by one which indicated the measurement process of allocation of cost over the life of the asset. The Securities and Exchange Commission in its latest Regulation S-X, issued in December, 1950, retains the title, "Reserve for Depreciation."

The electric and gas utility industries believe therefore that no change should be made in the present account title until a more descriptive title has been generally adopted if this be possible. The accounting prescribed for regulated industries should not initiate new and untried accounting terminology. However, if there is to be a change in terminology, it should contribute to clearer thinking and

not increased confusion. The word *depreciation* itself has no proper place in an accounting system that is wedded to the cost *convention*.

(2) Implication of Retroactive Accounting for Depreciation

No consideration has been given in the proposed system of accounts for the change to the required straight-line method, other than that "provision for past accrued depreciation not provided for" is included as one of the items in Account 461, Special Income Charges.

It must be recognized that many utilities accounted for depreciation for many years in accordance with theories then widely accepted by regulatory agencies, as well as utility managements, which required minimum depreciation charges and reserves and that such retroactive adjustments may involve very substantial amounts. Even where the reserves have been increased substantially, there is the question always, at whose cost? And even where this may be clear, complete deductibility confiscates a substantial part of the investor's equity, and where the sinking-fund method for computing depreciation is permitted or prescribed by state regulatory authorities, in some jurisdictions, the retroactive adjustments may unfairly affect the utilities.

To effect the changes retroactively for past charges for depreciation is incorrect unless accounts are effected retroactively in all other accounts, and this is an obvious impossibility. The investor interest is the only one that can possibly be affected by retroactive accounting for depreciation. Surely, this cannot be considered fair. Retroactive adjustment of depreciation accounting should not be required without permitting the upward adjustment of capital assets (now stated at so-called "original cost") to conform to the present concepts of cost determination and property units and present concepts for distinguishing between cost of utility plant and operating charges.

Conclusion

The electric and gas utilities believe that the present title of reserve for depreciation should be retained and that the title of the account should not imply in any manner that the balance represents something other than its true content. The expression "accrued depreciation" in a title for reserve for depreciation is inappropriate, since it is not sufficiently distinguished from "depreciation reserve requirement," which is ordinarily used to mean the amount that ought to be accumulated in the reserve at any given time on the basis of a given or required method of systematic allocation of cost. The accounting terminology for regulated companies should follow accepted practice, and no changes should be made until more descriptive titles have been fully accepted.

The electric and gas utilities also believe that the reserve for depreciation account should be included with all other credit balance sheet accounts consistent with present practice. The issues involved in respect to balance sheet presentation of plant accounts and reserve for depreciation for public utilities must remain clear. The fact that deductibility of depreciation has become acceptable accounting practice in non-regulated indus-

tries is no reason for this practice to be adopted by regulated industries. The convention for showing the reserve on the credit side of the balance sheet of regulated utilities is of long standing, and no new developments have taken place which require the change in account arrangement or balance sheet presentation. The arbitrary requirement for deducting the reserve for depreciation can only be interpreted as an attempt by the Committee on Statistics and Accounts to establish through accounting a standard formula for rate determination which the courts and the legislatures have refused to adopt because of the realization of the inaccuracy and unfairness of the end result.

Deduction of the depreciation reserve from the "original cost" of plant results in a monetary reduction in assets, when in fact the reserve actually measures, in most instances, an additional investment in plant and an increase in the volume of physical assets employed in the business. Regulated electric and gas utility industries should not be required to submit statements that would contain such misrepresentation of material facts, which would be construed as serious admissions against interest and which would be a strong influence toward the confiscation of their property. Existing depreciation reserves are not the result of the same types of charges and credit transactions in various companies or over a period of time, and the net figure, after deducting the reserve, would represent a different result for each company, but in any event, would not reflect an accurate statement of any significant fact useful for financial or any other purpose.

The presentation of the reserve on the credit side of the balance sheet conforms to sound accounting principles. No good reason has been offered by regulated industries, where the plant account is the most important factor in determining its permitted earnings, should follow the practice of deductibility simply because it has been heretofore accepted in non-regulated industries and where it does not have the same significance. Questionable as is the practice to deduct the reserve in the case of non-regulated enterprises, it has a far greater significance to regulated utilities, and its adoption will lead to improper conclusions and result in unfair losses to investors. Regulatory authorities should not prescribe accounting provisions which will unjustly, seriously, and needlessly, affect the electric and gas utility industries.

Welfare state

The Government,
It's probably true,
Will take care of me
And take care of you,

Take care of our birth,
Our marriage, our death,
Take care of our first
And our final breath,

Take care of our thoughts,
Take care of our rent. . .
But who will take care
Of the Government?

—Richard Armour

New A.G.A. members

Gas Companies

Saskatchewan Power Corp., Regina, Saskatchewan, Canada (J. W. Tomlinson, general manager)

Associate Companies

Harry O. Donnelly Co., Akron, Ohio
(Harry O. Donnelly, owner)

Manufacturer Companies

Ace Heater Manufacturing Co., Inc., Dallas, Texas
(Z. A. Booth, Jr., president)
Certified Gas Equipment Corp., Mansfield, Ohio
(William Robinson, vice-president)
Ducane Heating Corp., Lincoln Park, N. J.
(John Ducate, president)
The Jaeger Machine Co., Columbus, Ohio
(Mr. Wolfe, executive assistant)
Prizer-Painter Stove Works, Inc., Shillington, Pa.
(Leonard E. Bilger, president)
Watts Regulator Co., Lawrence, Mass.
(George B. Horne, president)
Jud Whitehead Heater Co., Oakland, Calif.
(Jud Whitehead, Jr., president)

Individual members

Clyde D. Alstadt, Columbia Gas System Service Corp., Columbus, Ohio
Paul D. Bailey, Airtemp Division, Chrysler Corp., Dayton, Ohio
Ralph Blake, Pacific Gas & Electric Co., San Francisco, Calif.
Joseph P. Boland, South Wind Division, Stewart-Warner Corp., Indianapolis, Ind.
Clarence Browder, City of Sweetwater, Sweetwater, Tenn.
Allen H. Burgess, Laclede Gas Co., St. Louis, Mo.
John S. Cooke, Laclede Gas Co., St. Louis, Mo.
T. G. de Voogd, Gassichting, The Hague Holland

Malcolm M. Devore, Haskins & Sells, Los Angeles, Calif.
Flora G. Dowler, The Manufacturers Light & Heat Co., Pittsburgh, Pa.
Arthur J. Elbert, Jr., National Tube Co., Pittsburgh, Pa.
Thomas F. A. Flynn, Algonquin Gas Transmission Co., Boston, Mass.
Carl Fox, City of Jackson, Inspection Dept., Jackson, Mich.
George J. Frantz, Jr., Allentown-Bethlehem Gas Co., Bethlehem, Pa.
A. H. Gaede, Florida Home Gas Co., Deland, Fla.
W. J. Gerrman, Southern California Gas Co., Los Angeles, Calif.
B. Harry Gomer, Philadelphia Gas Works Co., Philadelphia, Pa.
John Grayston, North Western Gas Board, Stockport, Cheshire, England
John V. Hochheimer, The Peoples Gas Light & Coke Co., Chicago, Ill.
Joseph C. Holinko, Richmond Gas Corp., Richmond, Ind.
George T. Iwicki, The Peoples Gas Light & Coke Co., Chicago, Ill.
John C. Kania, Conversions & Surveys, Inc., New York, N. Y.
Ted Kennedy, The Trenton Corp., Ann Arbor, Mich.
P. W. Lauer, York County Gas Co., York, Pa.
Morton Lewis, Columbia Gas System, Inc., New York, N. Y.
Theron W. Locke, Goodbody & Co., New York, N. Y.
Gene B. MacFarland, Day & Night Division, Affiliated Gas Equipment Co., Monrovia, Calif.
William A. Marshall, Dearborn Stove Co., Dallas, Tex.
Edward B. McMahon, The Peoples Gas Light & Coke Co., Chicago, Ill.
Harry L. McMasters, Pacific Gas & Electric Co., San Francisco, Calif.
R. E. Meade, New York State Electric & Gas Corp., Oneonta, N. Y.
J. H. Mee, Pacific Public Service Co., San Francisco, Calif.
Paul A. Miller, Pacific Lighting Corp., San Francisco, Calif.
Hertel C. Missimer, Jr., The Philadelphia Gas Works, Philadelphia, Pa.
Robert A. Modlin, The East Ohio Gas Co., Cleveland, Ohio

Richard D. Morel, Transcontinental Gas Pipe Line Corp., Linden, N. J.
Bernard S. Moses, Consolidated Gas Electric Light & Power Co. of Baltimore, Baltimore, Md.
W. W. Mullikin, Keokuk Gas Service Co., Keokuk, Iowa
T. J. Noble, Northeastern Gas Transmission Co., Springfield, Mass.
R. J. O'Brien, Coast Counties Gas & Electric Co., San Francisco, Calif.
George P. O'Day, James B. Clow & Sons, Chicago, Ill.
William Plunkett, Los Angeles, Calif.
Charles A. Praxmarer, Michigan-Wisconsin Pipe Line Co., Detroit, Mich.
Robert G. Prosser, Milwaukee Gas Light Co., Milwaukee, Wis.
W. K. Rentz, Coast Counties Gas & Electric Co., San Francisco, Calif.
Giovanni Ricci, Industria Gas Liquidi, Naples, Italy
Alex Robertson, Alex Robertson Co., Paramount, Calif.
Merle F. Sample, Pennsylvania Gas Co., Erie, Pa.
Frank Seery, General American Transportation Corp., Pittsburgh, Pa.
Ernest F. Semrad, Michigan-Wisconsin Pipe Line Co., Detroit, Mich.
Harry Shanks, The Peoples Gas Light & Coke Co., Chicago, Ill.
J. E. Sheeks, Coast Counties Gas & Electric Co., San Francisco, Calif.
Mrs. Winnell Simmons, Houston Natural Gas Co., Houston, Texas.
Joseph Staller, Southern California Gas Co., Alhambra, Calif.
James H. Stannard, Jr., Pacific Gas & Electric Co., Vallejo, Calif.
R. I. Stark, Coast Counties Gas & Electric Co., Pittsburg, Calif.
H. W. Thornton, Coast Counties Gas & Electric Co., Taft, Calif.
William H. Trapnell, Commonwealth Natural Gas Co., Richmond, Va.
Robert A. Vitolo, Long Island Lighting Co., Far Rockaway, N. Y.
William G. Walkup, Philadelphia Electric Co., Norristown, Pa.
James C. Woodruff, Michigan-Wisconsin Pipe Line Co., Detroit, Mich.
Anthony B. Young, The Peoples Gas Light & Coke Co., Chicago, Ill.

Research advances

(Continued from page 12)

ance are being studied. Both built-in instantaneous type coils and built-in slow recovery coils connected to storage tanks are being employed. Findings will be correlated with those from similar studies made by various gas companies and other investigators to indicate improvements which might be made in design.

In the commercial cooking field, extensive research on deep fat fryers with respect to effective methods of applying heat has yielded design charts somewhat

similar to those developed for gas furnaces. Results of this work have indicated possible advancements of such magnitude that a prototype frying unit was constructed and demonstrated to deep fat fryer manufacturers during a seminar held at the Laboratories.

As a result of this seminar, every manufacturer's representative attending the meeting agreed to submit new experimental models to the Laboratories' research department for check tests on their performance. Although these check tests are being conducted primarily for the manufacturers' benefit and are not

for approval purposes, they serve to bridge the important gap between the written word and the accomplished fact. A comprehensive report on this subject is being prepared for publication.

Recently initiated projects on commercial cooking include a study of the factors which lead to more effective application of heat to deck bake ovens and a study of automatic controls for all types of commercial cooking equipment. In the deck bake oven studies, a thorough analysis of aeration requirements necessary for effective heat application and heat distribution will be made.

Utility executives

(Continued from page 17)

braces broad principles, factual information, and practices which are essential to the successful management of utilities, rather than the technical and detailed procedures which are more appropriately handled by utility companies in their own training programs. The processes of making and evaluating policy decisions in the various areas of management are emphasized. Stress is placed upon the techniques of developing and administering management practices, the effective use of tools of management, and the relationships between line and staff employees.

The 1952 program covers five broad areas of study: enterprise economics, financial administration, human relations, management functions, and regulation.

Enterprise economics is treated under two sections, one of which deals with the nature and requirements of a free enterprise system and the place of regulated industry in that system. The other deals with business conditions, including national income analyses, business forecasting and the causes and treatment of business instability.

Financial administration is similarly handled in two parts, accounting and finance. Accounting emphasizes the use and understanding of financial and statistical statements and the consideration of terminology and presentation of reports for the benefit of management, employees, investors and regulators. Finance, the second portion of this course, emphasizes financial structures, dividend policies, methods of capital raising, indenture and stock contract provisions, private placements of security issues, competitive bidding and fund management.

The human relations course strives first for an understanding of the behavior and attitudes of individuals, and then of the means of developing the managerial skills necessary to influence human behavior on the job. Particular attention is given to the skills needed for the effective conduct of interviews and business conferences. Emphasis is placed on methods of democratic supervision with its necessary corollary, two-way communication. Administrative practices, directed at satisfactory industrial relations and executive development, receive attention with respect both to methods and organization.

Management functions deals with the

bases for making policy decisions, the factors to be considered, and the means of weighing those factors. The co-ordination of long-term and short-run policy choice is studied, and consideration is given to the economic and technical developments affecting the long-range future of utilities.

The subject matter of the regulation course covers the economic and legal background of regulation as well as the development of regulation at federal and state levels. The rate base and rate level problem, the regulation of service, securities and inter-corporate regulations are also considered at length.

The program utilizes the full instructional facilities of the School of Business Administration, University of Michigan. Regular faculty members, under Dean Russell A. Stevenson, teach their specialties. Robert L. Dixon, professor of accounting, acts as director of the program.

Requests for applications are being received before all details have been announced. Acceptance will be based in part on an effort toward equitable representation from utility industries and individual companies. Full information can be obtained from Robert L. Dixon, director, Public Utility Executive Program, School of Business Administration, University of Michigan, Ann Arbor, Michigan.

Industrial relations

(Continued from page 40)

risen slightly, appearing in 67 percent of current contracts, as against 64 percent last year.

● **Of interest to industrial relations executives:** A survey of the current trends in office customs and practices, issued by the National Office Management Association, 132 W. Chelton Avenue, Philadelphia 44, Pa. (32 pp., \$2), and the 800-page "Accident Prevention Manual for Industrial Operations," enlarged edition of the manual published four years ago by the National Safety Council, 425 N. Michigan Avenue, Chicago.

"Occupational Outlook Handbook," Bureau of Labor Statistics Bulletin No. 998, 1951 edition, giving employment information on 433 occupations, obtainable from U. S. Government Printing Office, Washington 25, D. C. (575 pp., price \$3).

"Handbook of Labor Statistics," 1951 edition, United States Department of Labor Bulletin No. 1016, obtainable from the Government Printing Office, 239 pp., \$1.25; "Labor Problems in a National Emergency," by various authors, in the October issue of the "Monthly Labor Review," pp. 384-413; and "Wage Chronology No. 19: Big Four Rubber Companies, Akron and Detroit, 1937-1951," "Monthly Labor Review," October, pp. 438-446.



1952

JANUARY

- 21-23 •A. G. A. Home Service Workshop, Drake Hotel, Chicago, Ill.

MARCH

- Week of March 10 •National Association of Corrosion Engineers, Galveston, Texas.
27-28 •Oklahoma Utilities Association, Biltmore Hotel, Oklahoma City, Okla.
27-28 •New England Gas Association, annual convention, Hotel Statler, Boston, Mass.
31-April 2 •Mid-West Gas Association, annual meeting, Hotel Radisson, Minneapolis, Minn.

APRIL

- 3-5 •Florida-Georgia Gas Association, annual meeting, Soreno Hotel, St. Petersburg, Fla.
4 •The Maryland Utilities Association, annual meeting, Lord Baltimore Hotel, Baltimore, Md.
7-8 •Eastern Natural Gas Regional Sales Conference, Hotel William Penn, Pittsburgh, Pa.
7-9 •National Conference of Electric and Gas Utility Accountants, Hotel Commodore, New York, N. Y.
7-10 •A. G. A. Distribution, Motor Vehicles and Corrosion Conference, Benjamin Franklin Hotel, Philadelphia, Pa.
8-10 •Southwestern Gas Measurement Short Course, University of Oklahoma, Norman, Okla.
16-18 •A. G. A. Sales Conference on Industrial & Commercial Gas, Netherland Plaza Hotel, Cincinnati, Ohio.
21-23 •A. G. A. Mid-West Regional Gas Sales Conference, Edgewater Beach Hotel, Chicago, Ill.
24-25 •Indiana Gas Association, annual meeting, French Lick Springs Hotel, French Lick, Ind.
28-30 •Southern Gas Association, annual meeting, Galveston, Texas.

MAY

- 5-9 •A. G. A. Commercial Gas School, Chicago, Ill.
8-9 •Public Utilities Advertising Association, Hotel Radisson, Minneapolis, Minn.
12-13 •A. G. A. Natural Gas Department Spring Meeting, Biltmore Hotel, Los Angeles, Calif.
13-15 •Pennsylvania Gas Association, Wernersville, Pa.
21-23 •GAMA annual meeting, The Broadmoor, Colorado Springs, Colo.
22-23 •The Natural Gas and Petroleum Association of Canada Convention, General Brock Hotel, Niagara Falls, Ontario.
26-28 •A. G. A. Production & Chemical Conference, Hotel New Yorker, New York, N. Y.

Personnel service

SERVICES OFFERED

Appliance Engineer with extensive product design and development experience in gas range and heater field desires to change position. Graduate engineer with fine background in development and production of gas and oil appliances, can be utilized to either head up Engineering Department or as Assistant. Resume available or personal meeting can be arranged readily. 1683.

Accountant—Three years with large chemical concern. Experienced general ledger, home office accounting, inventory records and financial statements. Seeks position requiring intelligence, ambition, and resourcefulness. BBA degree; Veteran; Married. (26). 1684.

Sales & Engineering Management—Thirty years' gas utility and related industry experience involving engineering and administration. Assignments included gas works and distribution construction, gas and electric consumer service, utility sales management, national sales and promotion management. Professional Engineer New York State. 1685.

Measurement and Odorization Engineer—five years' natural gas experience. Able to assume full responsibility for odorization and orifice metering, and assist in distribution engineering, utilization, corrosion, and oil gas production. Prefer all-gas utility in East. Graduate engineer. (31). 1686.

Personnel Director presently heading up personnel, industrial relations and safety departments of West Coast company employing 500 men wishes to locate in middle west. Present salary \$7,200. Married veteran exempt from duty due to age, dependents and previous service. Particulars on request. (31). 1687.

Sales Executive with outstanding record for promotion and distribution of major gas appliances desires connection with appliance manufacturer. Experience covers administration, training of dealer organizations, and advertising. Full particulars will be sent upon request. 1688.

Manager—Extensive training and experience in construction and management and all phases of natural gas operation. Experience includes high and low pressure distribution plants, also sales and service. 1689.

Analytical and economy minded man now employed in junior executive capacity desires administrative or right-hand man position. Background: production, geology, economic analyses. Can prove outstanding achievement and organizing ability. Salary secondary to advancement opportunity. Married. (38) 1690.

Managerial, Operation or Sales—Eighteen years' of administrative, sales supervision and engineering experience for gas utilities. Good practical knowledge of most every phase of utility work. B. A. Degree (Business-Management). Present position Commercial and Industrial Manager, including house heating for 23,000 meter property. Available thirty days' notice to present employer. Married. (41) 1691.

Heating Representative, sixteen years' experience with gas company would like position as **Gas Sales Supervisor or Factory Representative** for gas heating equipment. Middle west or south preferred. Further information on request. 1692.

Technical Assistant—Twenty years' experience in gas and related industry—analysis, distribution, research, safety. Would make some busy executive a good technical assistant. South or Southeast location preferred. College training, married, family. (42) 1693.

POSITIONS OPEN

Assistant to the Director—Man, 35 to 40 years of age, with gas industry and teaching experience to assist the Director in the conduct of a comprehensive research and development program. Ability to write reports and handle men important. 1694.

Coal Chemist—Applicant should have considerable experience and a broad knowledge of all phases of coal research.

Attractive Openings for both recent graduates and experienced personnel in the fields of oil cracking, coal carbonization, utilization of gaseous fuels, fuel analysis, and physical and chemical properties of gases and gas-making materials. Excellent research and pilot plant facilities. New building. Opportunities in teaching and research. Financial aid in continuing one's own education. Retirement and hospitalization plans available. 0630.

Gas Department Superintendent—Large Public Utility Operating Company requires experienced manufactured gas (Coal, blue and carburetted gas) Engineer to supervise construction, operation and maintenance of two gas supply systems. Ability to analyze gas production and distribution problems, organize gas operations, secure cooperation of associates and workmen and the desire to get things done essential. Location South America. Living and working conditions good. Salary range commensurate with qualifications. Reply in detail stating age, education, experience records, references and salary requirements. Replies held confidential. 0631.

Sales Executive—Outstanding opportunity to direct an expanding and developing sales organization in an established Domestic Gas Heating Line. Nationally known, large and reputable manufacturing organization with diversified lines. Located in the Midwest. Must have successful

experience in sales management of gas heating equipment. Salary commensurate with qualifications. Replies held confidential. Write qualifications in detail. 0632.

Local Manager for gas property in a growing industrial community of 12,000 population, located in Pennsylvania. Position is permanent and provides attractive future with well known operator. Applicant should be under fifty, of good personality and experienced in load building and sale of equipment. Knowledge of propane-air operation desirable. 0633.

Superintendent to act as inspector during construction of a high-pressure pipe line and to assume responsibilities of superintendent of operation and maintenance of line when completed. Experience necessary in construction, maintenance, metering, and odorizing. Reply in detail, stating age, education, references, and salary requirements. 0634.

Salesman by southern manufacturer gas appliances to travel southeastern states. Experience with gas utilities desirable but not required. State experience and expected compensation. 0635.

Manufacturer of gas and oil conversion burners, warm air furnaces, and boilers, starting an expansion program and in need of additional District Sales Representatives. At present several desirable and profitable districts available. Salary, expense allowance and a very liberal commission on all sales in the assigned territories. If you are between the ages of 30 and 45, with experience in the sale and service of gas and oil fired domestic heating equipment, write, giving full details concerning experience, education, character and business references, as well as preference of territory. 0636.

Sales Manager or Assistant Sales Manager for one of the oldest, midwest heating manufacturers currently building oil and gas burners, furnaces, water heaters and boilers and planning an expansion program for greater sales distribution. Applicants must have held positions of like capacity with ability to direct sales and distributions of domestic heating equipment. Salary commensurate to position and individual ability plus bonus participation of company earnings. State qualifications, experience and present employment. All applications strictly confidential and our employees know of this advertisement. 0637.

Exhibit Manager—Opportunity for man experienced in running home shows and housing exhibits. Utility company background of kitchen planning or appliance sales desirable. Prefer degree in architecture and knowledge of publicity and advertising. Character and personality must be the best. Starting salary \$6,000 to \$7,500 depending on experience. Please furnish complete summary of education, experience, salaries, interests, ambitions, and general background. 0638.

Top chefs

(Continued from page 15)

cooking fuels. He puts it this way:

"How could I create my wonderful consommés and tasty sauces without perfect control of temperature at all times? Gas is the only cooking fuel I can rely on to give me the perfect blend of meat juices when I make my favorite dish of all, lamb stew."

Chef Nicholas Marchitelli of the Mayflower Hotel in Washington has another reason for the desirability of gas. Today's stepped-up tempo means meals must be prepared faster than ever before.

Chef Marchitelli says gas is the only fuel that can provide the needed heat on demand while doing the job asked. Gas, he says, is absolutely necessary to the

modern way of life.

Chicago, to the gourmet, means the Pump Room and *shish kebab* on a flaming sword. It's the specialty of Quido Mori, chef there for almost 40 years. Mori, who usually is a man of few words, waxed eloquent when it came to gas. He termed it the best cooking fuel because it is more reliable, more powerful and less expensive than other fuels.

The chefs revealed a keen appreciation of the cooking problems facing housewives. All their advice to the home cook included the almost religious insistence that appliances be kept spotless.

Pancho Carlos, specialist in French cuisine at the Town House in Los Angeles, said there should be periodic cleaning of the burners plus a checkup of

the appliance by a certified serviceman.

"One washes dishes after every meal but neglects to treat the range to a bath," says Carlos. "Cleaning your gas range keeps it in top-flight condition to give a top-flight performance at all times."

A final tribute to gas ranges as the ideal cooking appliance came from Humbert Gatti, head chef at the Plaza Hotel in New York. He is an exponent of the French-International type school of cooking. His battery of gas ranges are in use from 6 a.m. each morning to 2 a.m. the next day, and he's convinced only a gas range can take such a beating.

"Gas appliances alone can stand up under constant, heavy-duty use," says Gatti. "There's no question that gas ranges best meet need of chefs today."

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